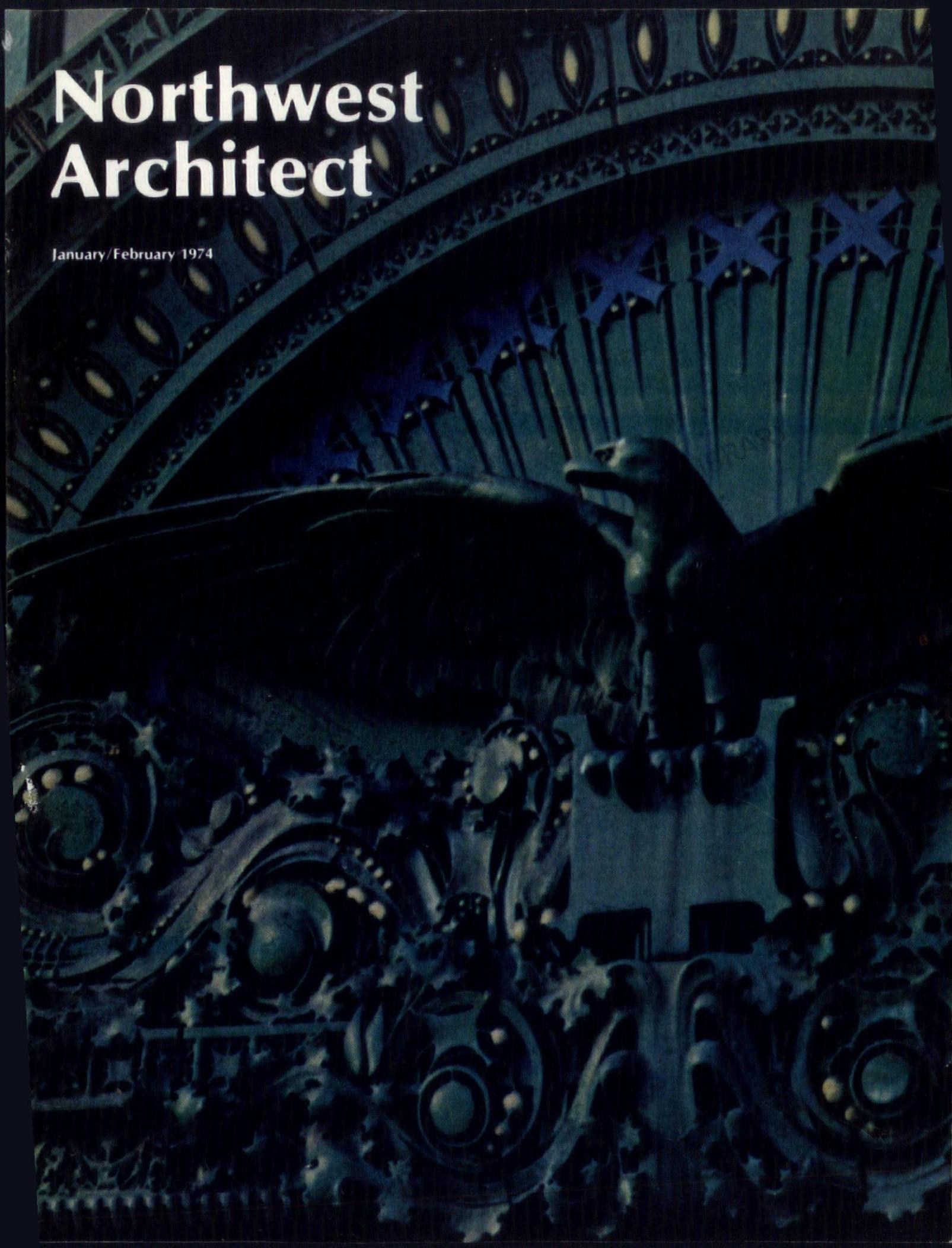


Northwest Architect

January/February 1974



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Northwest Architect

January-February, 1974
Volume XXXVII Number 1

In this issue . . .

Three of the five special awards given at the Minnesota Society of Architects' Convention last November went to: The late Hugh Galusha, Jr., president of the Federal Reserve Bank, who initiated its building program, for his "dedicated commitment and deep felt sensitivity to the enrichment of our physical environment"

The Community Design Center of Minnesota "for exceptional achievement and leadership in initiating an advocacy program of design consultation and planning to serve low-income communities and individuals".

The Merchants National Bank of Winona "for outstanding contribution to Minnesota's sculptural and architectural heritage".

These three projects are shown in this issue. Also honored and to be featured later were the IDS Center in Minneapolis and the Joe Peterson & Son Construction Company.

It is ironic and indicative of the broad range of commitment and commission of the profession that two such divergent bodies as the Federal Reserve Bank Building and the Community Design Center should be cited simultaneously: on the one hand, this bank of banks, this calibrator of the regional economy and prosperity and, on the other hand, the organization giving professional help to the victims of the imperfections of that same economy.

Although the Walker has not been emptied yet to allow the public to experience the building as sculpture, the designers of the show "New Learning Spaces and Places", Hardy Holzman Pfeiffer Associates, did explore and explode the sculpture, or at least the two galleries used for their exhibit. As the plan on page 17 shows, they aggressively demolished the given elegant spaces and created new, generally unfamiliar sets and settings. Their design is enthralling and arouses some regret that they did not instead accept and articulate the galleries in Barnes' terms.

Bernard Jacob

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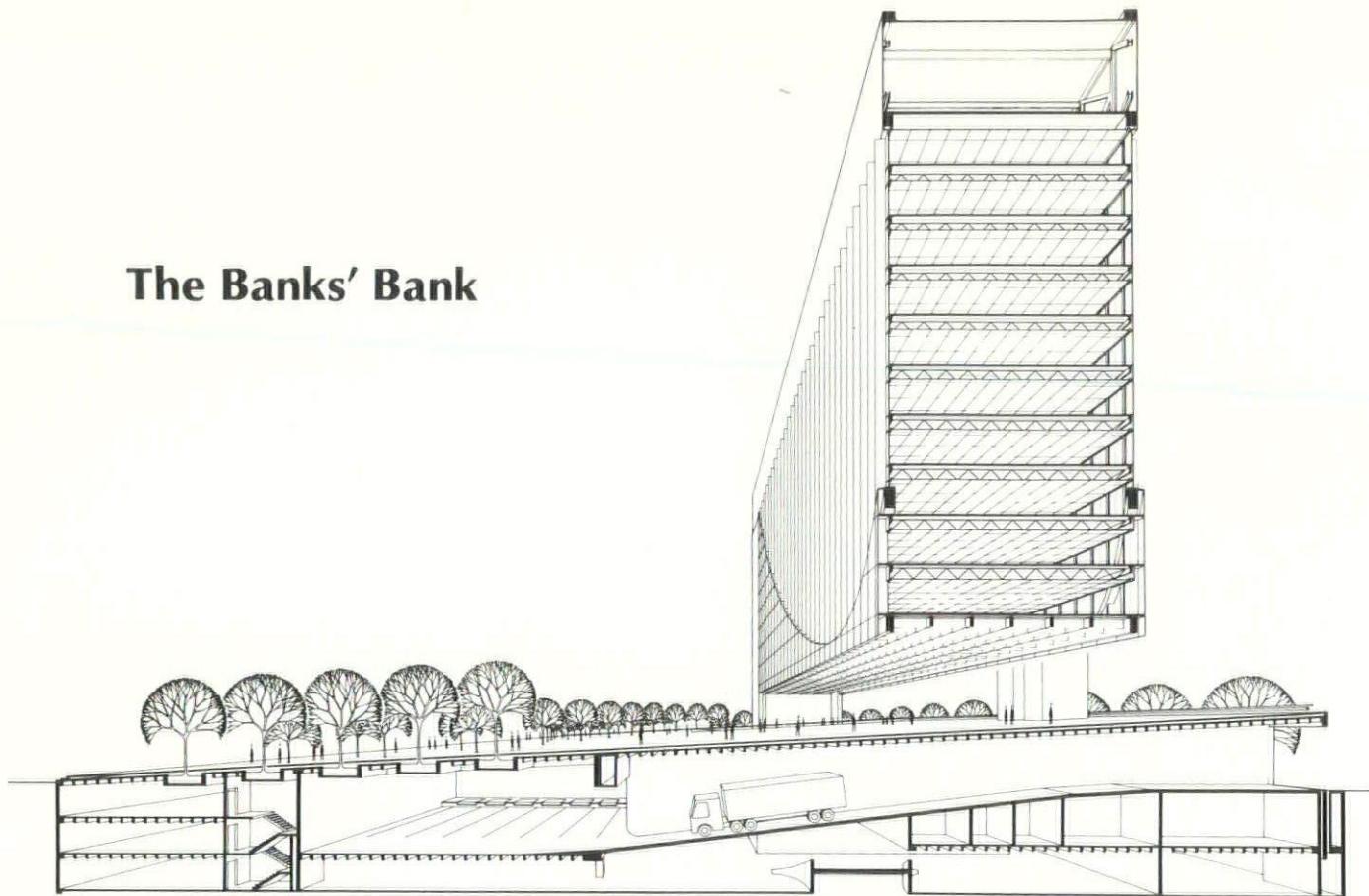
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Cover Photo: Detail from the Merchants National Bank of Winona. (See Page 11).

The Banks' Bank



Given in bold faced type are observations and comments by Gunnar Birkerts recorded in the course of two conversations with the Editor of Northwest Architect in December 1973 and January 1974.

The most photographed and — together with the IDS Center — the most famous new building in downtown Minneapolis is most certainly the Federal Reserve Bank, designed by Gunnar Birkerts and Associates. The drama and elegance of the form, the glittering facades, the generosity of the plaza are what make this building so appealing and seductive. Gunnar Birkerts' achievement is to have given a very complex program clear and graphic realization.



GUNNAR BIRKERTS

"The design for the new bank was not preconceived, it came definitely as a result of having received all the input (the site for the building, the surrounding buildings, the zoning, the ordinances, the program of the building, the budget, the function of a regional bank). One requirement was that we could only build a multistory building on that part of the block that bordered on Marquette Avenue. However, our program was such that we couldn't get everything in that space, so that began to suggest that we'd have to use the underground. Another influential factor was the requirement to provide open space in connection with the building. The concept came after analyzing the multitude of factors that would affect it.

"Function and space allocation very clearly separated the building program into two parts: the secure part, or the actual area for handling and storing valuables, and the part that didn't have to be secured, the clerical and administrative part. We couldn't put the secure part into a glass building, nor did we want to put people (the ones who don't work with valuables) in a building without windows. So we put the secure area underground and covered it with a plaza, and we 'hung' the nonsecure office tower.

"It was a challenging task for all of us to design this building because of its split personality. On the one hand it

wanted to be opaque and protected and on the other it wanted to be transparent and communicative. As a result of this split, the plaza was born. It is a symbolic space — we view it as an outgrowth of the geological formations of this region. To be more specific, we can think of this as a granite mountain that has been shaved down to the form of this sloped plaza with further carvings done inside it to house the important, precious contents of the Federal Reserve Bank."

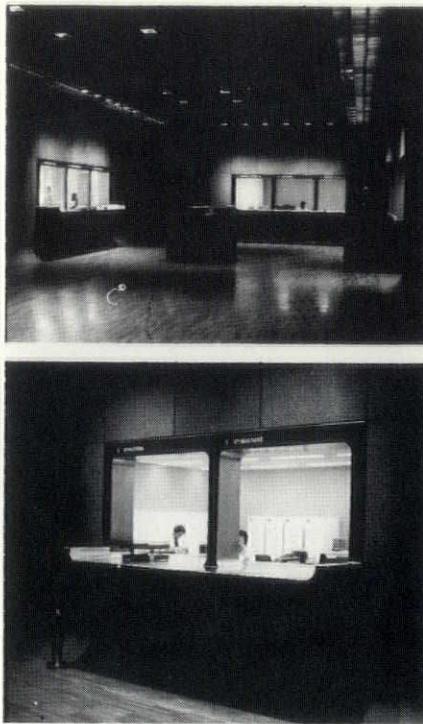
The plaza invites Nicollet Avenue onto itself and rises gently to overlook Marquette Avenue from a height of twenty feet. It is a generous and attractive granite surface. However, as the architect has said, many more activities will be needed in that part of town before the plaza fully comes into its own. The disappointment in the plaza is that it affords no direct entry into the building. Gunnar Birkerts' sculptural fountain "The Constant Spring," designed as a memorial to Hugh Galusha, is powerful and convincing in its scale and its relationship to the plaza. Perry's yellow sculpture, on the other hand, is almost pretty, perhaps too distracting or too much of a focus. Its color and scale (size) contrast too much with the plaza.

The glittering facade with its com-

manding catenary line has seduced even the most famous photographers. As the photographs show, this line is developed by the sheer plane differentiation of the glass. Within the catenary, the glass is recessed to the rear of the mullions; below the catenary, it is forward and flush with the outside face of the mullions. Under varying light conditions, it gives the facade unexpected drama. However, it is just a diagram of the structure, it does not transmit the tension and the heft of its muscular concept. In its near symbolic interpretation of the structural principle, it is indeed minimal sculpture or minimal architecture.

The interior of the building, like the exterior, offers some great delights and surprises. The detailing, finishing and the furnishings are quite simple and elegant. The public spaces, principally the first floor, off Marquette Avenue, suffer a little from armored-car-mania, although there may be no more security there than is necessary. The lighting level, the light quality are just right. The granite walls are handsome, the wood floors somewhat of a surprise and the stainless steel writing tables perhaps a bit strong. Although all of these elements are well done, detailed, and conceived, combined with ceiling height, the proportions of the room, the powerful and tough teller windows with the bullet proof glass, they make the public area almost too awesome or too imposing a space.

The upper floors of the tower are open and exciting. The narrow width of the floor and its openness help create a



feeling of suspension, a feeling of being almost on a bridge. The executive floor is somewhat startling and yet logical in its syntheses of the typical open upper floor, the security suggested in the lower level and the status appropriate to the officers of the bank. In some instances, the detailing is perhaps a bit more robust than necessary but all materials are used in a natural, straightforward manner.

The secure area under the plaza could someday become the scene of a science fiction movie. There are an abundance of security devices, screens, speakers, guards and gates. As long as there are bank robbers, it is only logical that such precautions are necessary. Again the use of materials, the detailing, the lighting and most working spaces are very pleasant. Nevertheless, it is about as architectural as the inside of a refrigerator with egg trays and butter shelves and pop slots, etc.

It is a super dividend that this bank of banks offers its community such delight and excitement, that it gratifies its longing for beauty, simplicity and the spectacular. Certainly this is a star building in the classical sense. Here Gunnar Birkerts comes closest to the spirit of his former employer, Eero Saarinen. This somewhat primitive urbanity, consistency of detailing, and clarity of concept were also Saarinen's strengths. Birkerts has translated the locale and the building's program into a challenging concept and a spectacular sculpture. It is the pause that refreshes in a gravity burdened metropolis. ■

Bernard Jacob

" . . . in due time, which may be now or a few years from now, they will develop uses for the plaza. Nicollet Mall was really not that active for a while after it was built either, it took a while to bring it on . . . "

" . . . very definitely that rise in the plaza was not a city planning consideration, it was a functional result of responding to functional requirements."

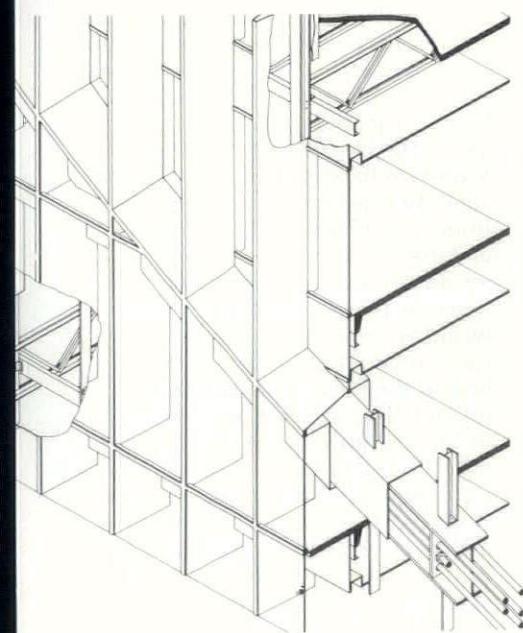
"The catenary notion, the spanning notion and the different explorations came from me but the whole feasibility, the engineering and the reassurance were strongly influenced by the engineers."

"Aalto is one whom I always look up to and I really like his work. He is very regional and I very much like his work in Finland. I am really wondering how he would respond to and how he would use technology; would he, and if he would, then where would he use it? He has had it available in Finland and he hasn't really done too much with it but he fascinates me . . . "

"Saarinen's persistence, the kind of inexhaustible bullish way of going after a solution — the attitude that what has been done is done, things have progressed and yesterday is history — had an influence on me. I feel that and I don't know whether that was Saarinen's influence or not but I do feel that: that yesterday is history, and even if I have to accept that as a way of life I like to progress. I remember him thinking out loud about a chair design. He said: 'There are four-legged chairs, I have seen three-legged chairs, I have seen two-legged chairs, but I haven't seen a one-legged chair.' That is how the pedestal chairs came about, that is thinking — his thinking — positive. Anybody can do a four-legged chair, three legs are more difficult, two legs are even more difficult but a one-legged chair is something and that is just how he looked at things."

"We look upon each project almost fresh, but what we carry over is the know-how, not necessarily the same detailing. That is one reason also that we have not been repeating ourselves. Almost all our buildings are of a different kind so that it isn't that there are five apartment buildings or five office buildings which are the same. Now all this is something new and so the know-how carries on but the actual continuity and the use of the detail and so on are not always, rather seldom, the same."

"Look for the unique and difficult aspects of a problem because, if recognized, they can be the character-generating ingredients that give the architecture individuality."



Building Facts

Lower Building

Three level, block-square underground area housing secure operations.

Office Tower

Eleven floors: 330 feet long and 66 feet wide (each floor has an unobstructed length of 275 feet).

Plaza

Total area is 2.5 acres, sloping from street level at the Nicollet Mall to 20 feet above Marquette Avenue. Granite, quarried at Cold Springs, Minnesota, covers the plaza surface and other portions of the building. Two snowmelting pits are buried beneath the plaza.

Main Lobby

The single pedestrian entrance into the building is at 250 Marquette Avenue. Security vehicles enter via a controlled ramp on Marquette at Third.

Gross Square Footage

551,035 (approximately 60 percent underground); overall height 210 feet.

Tower Structure

(Catenary describes the natural curve formed when a cable hangs between fixed points.) There are two catenaries, one on each side of the office tower, formed by cables and steel beams. Each cable is constructed of 108 strands of galvanized wire. The catenary supports the weight of the tower floors. Steel trusses span the top of the building to provide the necessary stiffness and connect with the catenaries. Each truss is 293 feet long, 28 feet deep and weighs 265 tons. Total weight of structural steel on the project is 2,750 tons. Four steel weldments, 37 feet high and 92 tons each, are situated atop the end piers and anchor the trusses. Each weldment can support 14.4 million tons.

Other Materials

36,000 cubic yards of concrete, 4,050 tons of granite, 300 tons of steelcrete, 3,700 tons of reinforcing steel.

Cost

Approximately \$30 million for the building, security provisions, special equipment and occupant services.

... the heart of the problem is the reconciliation of the physical security requirements of the structure, the public image of the Federal Reserve as the central bank of the United States and a building which would be expressive of the spirit of this district. The last is perhaps an obsession of mine but it has always seemed to me the regional character of the Federal Reserve System is a very real element of its strength. The 12 banks do represent distinct geographic areas, and they are different, but each in its way is representative of its district. The kinds of information we develop, the kinds of service we perform to the public in our districts reflect in large measure our separate requirements. In some way it is our hope that this flavor can be captured in the design of the bank . . .

Hugh D. Galusha, Jr.

"Regionalism, the spirit of the region, was definitely a consideration. I view this northwest area as of a heroic, pioneering, strong people and I attribute to them a lot of positive thoughts. They are strong, straightforward, they have endurance, they are tough, they are fighting the elements . . . This kind of spirit is what we tried to express in the building itself. Forward, strong and basic in many ways."

"I was aware of the local architectural scene, not that I was so influenced by it but my observations were that more than in any part of the country there is unity in the contemporary architecture locally. I would say it is a high quality architecture."

"The existing city fabric is not yet fully developed around here. The past one has been destroyed and the present one is developing and the future is not there yet. We are building a building here that should last for 50 to 100 years. The city fabric: at what point do you begin to consider the city fabric? Now, 50 years from now or 100 years from now? City fabric was considered and it was also anticipated that it would develop in a certain way or certain direction — namely, that this would become quite active and quite a dense urban fabric. What is around here at the moment is rather sheer and full of holes. So, what do you design for it? You design with the best anticipations that the city will develop in its intensity and will increase its density, most likely its use of the ground, and all streets will become lively as the mall is now. Every street can be like the mall. The mall is singled out as a phenomenon but all the streets could be that way. Why not project for that? So it (the city fabric) was considered, but with great optimism."

Photos Courtesy of the Federal Reserve Bank

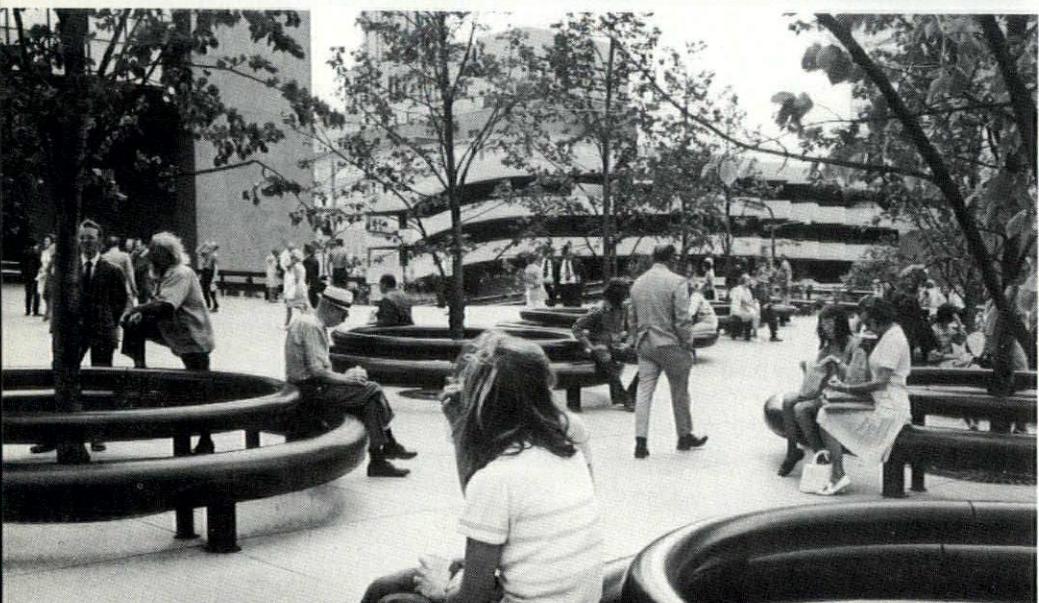
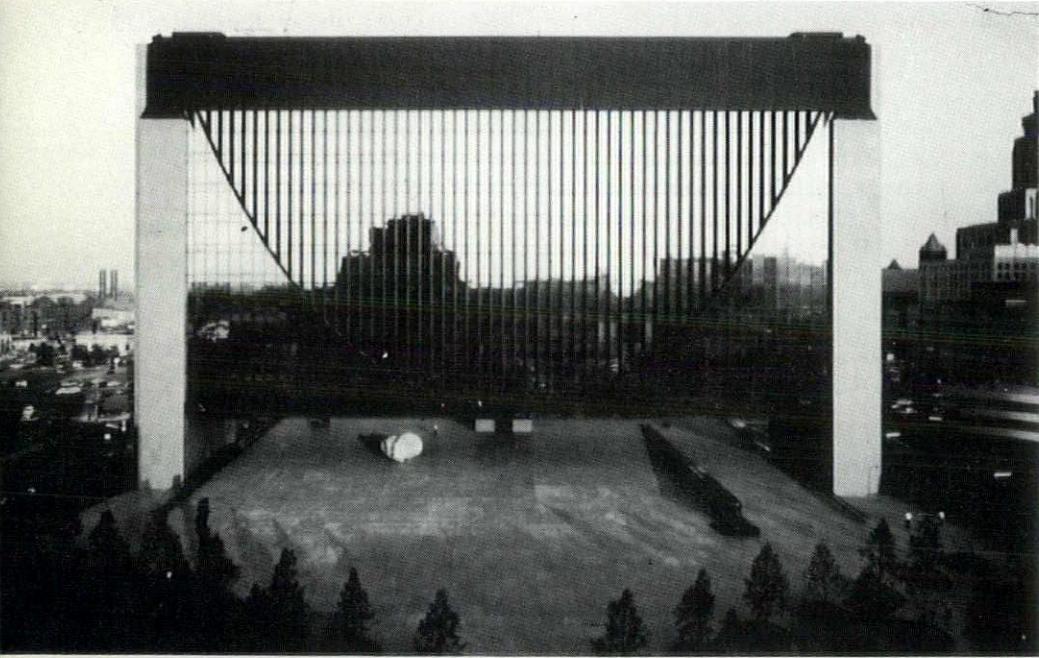




Photo by Balthazar Korab, Courtesy PPG Industries, Inc.

Architects **Gunnar Birkerts and Associates** — project director: Charles Fleckenstein; director of production: Vytautas Usas; director of field administration: Gunars Ejups; architect's field representative: Robert Bodnar; interiors: Barbara J. Bos. Engineers: Skilling, Helle, Christiansen, Robertson (structural); Shannon & Wilson, Inc. (foundation); Jaros, Baum & Bolles (mechanical/electrical). Consultants: Cerami and Associates, Inc. (mechanical/electrical); Geiger & Hamme, Inc. (acoustical); McKee-Berger-Mansueto, Inc. (cost); Arthur W. Dana & Associates (food operations); Hubert Wilke, Inc. (audio-visual). Landscape architects: Charles Wood & Associates, Inc. General contractor: Knutson Construction Company. Plaza Sculpture: Charles Perry, Dmitri Hadzi, and Paul Granlund.



The Merchants National Bank of Winona



The Merchant's National Bank of Winona

By Frederick W. Appell, Jr.

In 1911 to 1912 William Gray Purcell and George Elmslie designed and built the Merchants Bank of Winona, now called the Merchants National Bank. It is a unique structure, as notable for the pool of light captured in its interior as for the dynamic rising and falling planes of its facade, which partly cloak and partly reveal an innovative use of a steel I-beam lintel.

In June, 1969, after several remodelings, the sixty-by-sixty-foot building was declared functionally obsolete for one of the 20 largest banks in Minnesota and a new bank, designed by Dykins-Handford, Inc., of Minneapolis, was let out for bids. Purcell and Elmslie's building was to be demolished.

Late in that year, when a deluge of letters expressing public interest in preserving the building arrived, there was a propitious strike in the building trades. Herbert Scherer, art librarian at the University of Minnesota, wrote on November 26 to the bank president, Gordon Espy:

"According to David Gebhard, the architectural historian, the Merchants National Bank is the fullest expression of the bank buildings designed by the great early twentieth-century architectural team of William Purcell and George Elmslie.

"It seems too bad that many Americans, possibly yourself, Mr. Espy, travel to Europe to experience great architecture and on the other hand not only do not appreciate what we have but destroy it.

"Recently I spent a morning in Winona as a tourist. I ate lunch in one of your restaurants and visited *not* the new shopping mall which was being opened that day but the great Purcell and Elmslie bank. Perhaps you would prefer to be remembered in history as the savior of the great Purcell-Elmslie bank rather than its destroyer."

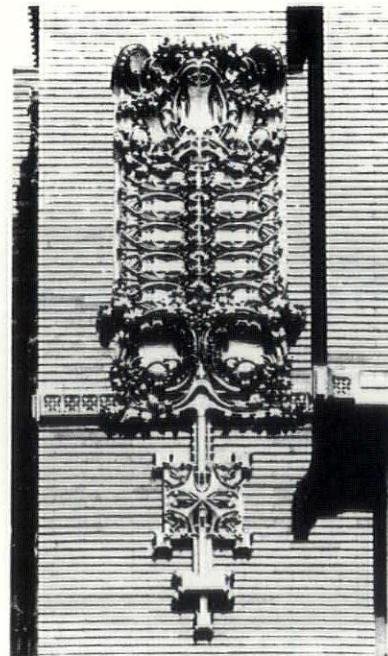
With a flexibility amazing for a modern corporation, the Merchants' directors rescinded their earlier decision and asked their architect to sacrifice his original design in favor of one that retained the Purcell and Elmslie building. The bank's president remembers having decided that "what we had here was worth saving." He asked Dick Handford of Dykins-Handford to save and enhance the historical value of the Purcell and Elmslie building and he put him in charge of both exterior and interior design. Dykins-Handford quickly demonstrated

that needed space and convenient public access could be provided by working around the historic building and by July of 1970 the revised plans were completed.

Becoming involved in their own architectural history was a project that cost the Merchants National extra time, inconvenience and money. It seemed of little immediate importance to the bank's customers. However, once committed, the bank leaned over backward to do the job right, giving the architect Handford a virtually free hand. Looking back, Gordon Espy says he'd like to forget the problems of running a business on the site of a historic reconstruction but with characteristic understatement he says that "we've been pretty pleased overall and I'm meeting with other bankers, including a group from Grinnell, Iowa, to encourage them to save their historic banks."

In 1969 to 1970 conserving the historic bank proved to be the most progressive and courageous of the available alternatives. It was with a similar spirit that the original commission was given to Purcell and Elmslie, at a time when Prairie School architecture was the subject of controversy and when contemporary taste called for banks, like post offices, to resemble Roman temples.

The prevailing mood in Winona in 1907 can be reconstructed from an earlier commission of Purcell and Feick for the First National Bank, a competitor of the Merchants. The president, H. C. Garvin, a friend of Purcell's father, commissioned a model that Purcell based on Frank Lloyd Wright's design for the Unity Temple. Garvin was pleased but the design was rejected by the bank's directors in favor of a



Beauty does not consist so much in the things represented, as in the need one has had of expressing them. Jean Millet

The trip from Minneapolis to Winona by train is a nostalgic journey. In the winter the 7:00 a.m. Amtrak departs covered with ice after a long night's run through the Dakotas — late, always late — but there is solace in the red and white carnations on the table in the dining car and in the sight of St. Anthony Falls smoking in the dawn. As the sun rises over the flat river snow, the Mississippi assumes the out-of-date colors of 1930's paintings: unbelievable rose and blue cut by breath taking dark blue shadows. In such a setting it is possible to reach across the years and feel the presence of William Gray Purcell, who wrote of his arrival in Minneapolis in 1907:

"It was 20 below zero in Minnesota. The thin lemon sunlight, as tight as frozen sailcloth, slatted past the soft flowing sleeping cars. Through the trip-glazed Pullman windows could be seen the clustered dusty tubes of grain elevators. Black sheds along the river clattered away behind as if in fact cut in two by passing freight trains. Once outside the railway station, one felt tight and small; hurrying freezing gloved hands to yellow streetcars, elbowing up the gated platform; pressing into crowded streetcar aisles. Between the people sitting or swaying on their legs all the various spaces were filled with frozen gray dust, with the gusty talk of Swedes going to work.

"Now arrived in Minneapolis, George Feick and his partner in architecture soon rented a room in a great old-fashioned home filled with a company of agreeable boarders. They found an office on the tenth floor of the New York Life Building. When they looked down the windows set deep in masonry walls, even at the height they saw one new brick building and, between the old ones, some ancient wooden dwellings — very grand in their day. Beyond were the rough rock walls and towers of the many steep tile roofs of the block-square Romanesque courthouse, a nationally famous palace of crime since 1889.

"Then these architects spread their drawing paper, tapped busily on an old typewriter, radiated enthusiasm and wondered a little just how they were going to secure some business in a strange city where the partners each knew but one man and the telephone book listed two dozen established architects busy planning buildings."



The Pioneer, in metal fabrication

PIONEER BUILDING, ST. PAUL. Prestige office structure, built in 1889. Problem: how best to enclose 16-story spiral staircase to meet current fire code, yet retain structure's highly unique openness and not destroy the past. Solution: low profile metal fabricated frame, using sizeable panels of fire resistant wire glass. Photo above clearly shows attainment of objectives. TOLTZ, KING, DUVALL, ANDERSON & ASSOCIATES INC. ARCHITECTS/ENGINEERS. LOVERING ASSOCIATES, INC., CONTRACTORS. Metal fabrication and installation by Minnesota Fence & Iron Works, Inc.

William Gray Purcell said, "What concerns P & E is not what a building will appear like, but what it is going to be, out in the rain and sun, among people, attending to its business effectively and being interesting to everyone every business hour of the day. All buildings are an advertisement — a building is an advertisement that cannot be rewritten, it must stand before all men without explanation."

neoclassical design. The decision must have been hard fought because the directors journeyed to Owatonna to see Sullivan's bank under construction there.

"Banks think of themselves as representatives of the U. S. Government," Purcell wrote, after having been told by a bank cashier not to forget to put the eagle on the front where the customers could see it.

In the early years Purcell produced commissions aided by his family's friends. Nine of the 21 banks the firm designed between 1907 and 1920 were built in the Upper Midwest (the list is published in the *Prairie School Review* II: 1, 1965). Harry Blair, a vice-president of the bank and a friend of Purcell's father, was credited by Purcell with having obtained for him the commission for the Merchants, the largest P & E Commission, which cost a little over \$44,000.

Purcell did a first sketch which includes his notation that when Elmslie returned he improved the design. The working relationship between the two men was a long standing one which preceded Elmslie's departure in 1909 from Adler and Sullivan where he had worked for 22 years. When Frank Lloyd Wright left Sullivan, Elmslie became head draftsman and in 1903 hired

Purcell, who worked briefly in the office. After that Purcell sent sketches to Elmslie, including the ones for his grandmother's house in Minneapolis which he also discussed with Wright before building in 1907. At the time of the Merchants Bank design Feick, Purcell's first partner, was still a member of his firm, as were a woman architect, Marion Parker, and Lourace Fournier, draftsman for many of the Winona drawing sheets who came to the office in 1912. The Merchants Bank design was the ambitious and successful example of commercial architecture by the firm.

The facade, as it was built, has a delicate balance between the descending elements of the outer arch emphasized by the large terra cottas and the functional supporting columns which rise to the lintel. This square arch is reminiscent of the bearing wall and arched window opening of earlier buildings such as Sullivan's bank in Owatonna. (An interesting discussion of the part Elmslie played in the design of Sullivan's bank is found in *The Prairie School*, H. Allen Brooks, University of Toronto Press, 1972.)

The deeply pierced walls and the green terra-cotta detailing contrast with the scaleless plane surfaces and abstract terra cottas, giving the building a sense of immensity that is belied by its actual dimensions.

In preparing the 1970 designs for preservation and remodeling Dick Hanford made every effort to subdue the additions to the original design, both inside and on the street facades. The use of reflective glass is intended to preserve the integrity of the mass of the original building. Close approximations of the original bricks were used for the additions and to reconstruct two sidewalk lighting pylons.

The architect was able to use the original blueprints and some tissue

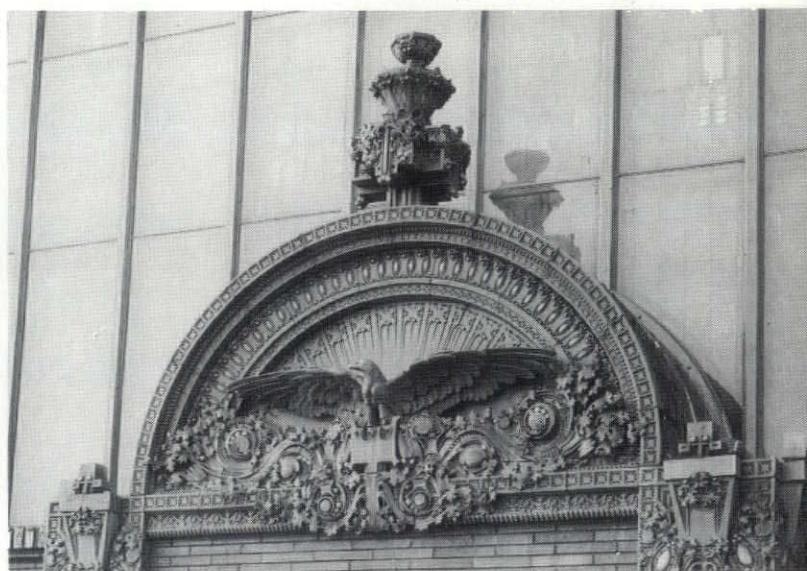
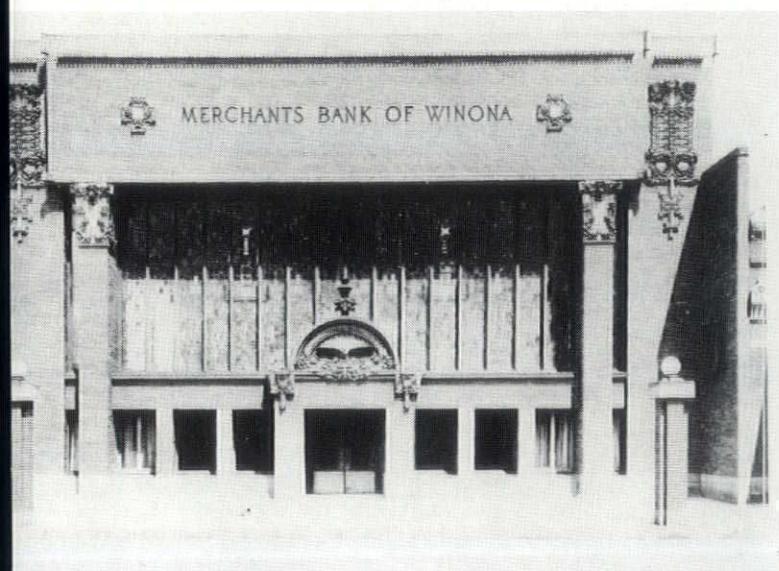
drawings from the newly established Northwest Architectural Archives at the University of Minnesota provided by Alan Lathrop, the curator, and placed there by David Gebhard, the executor of Purcell's estate and an authority on Purcell and Elmslie.

The original bricks, found in a defunct brickyard in Philadelphia, were used to patch the facade. A time-and-temperature sign, long a symbol of the bank, was removed and installed on the public mall in front of the bank. The interior was redesigned using pods or work stations for tellers so that personnel can be increased according to banking demand. As far as documentation would permit, the interior was rebuilt with fixtures and designs derived from the original plans but with a different use of space to meet modern requirements. Corridors through the additions give access to the banking floor from parking areas behind the bank. Construction was planned to allow maintenance of both banking functions and security during renovation.

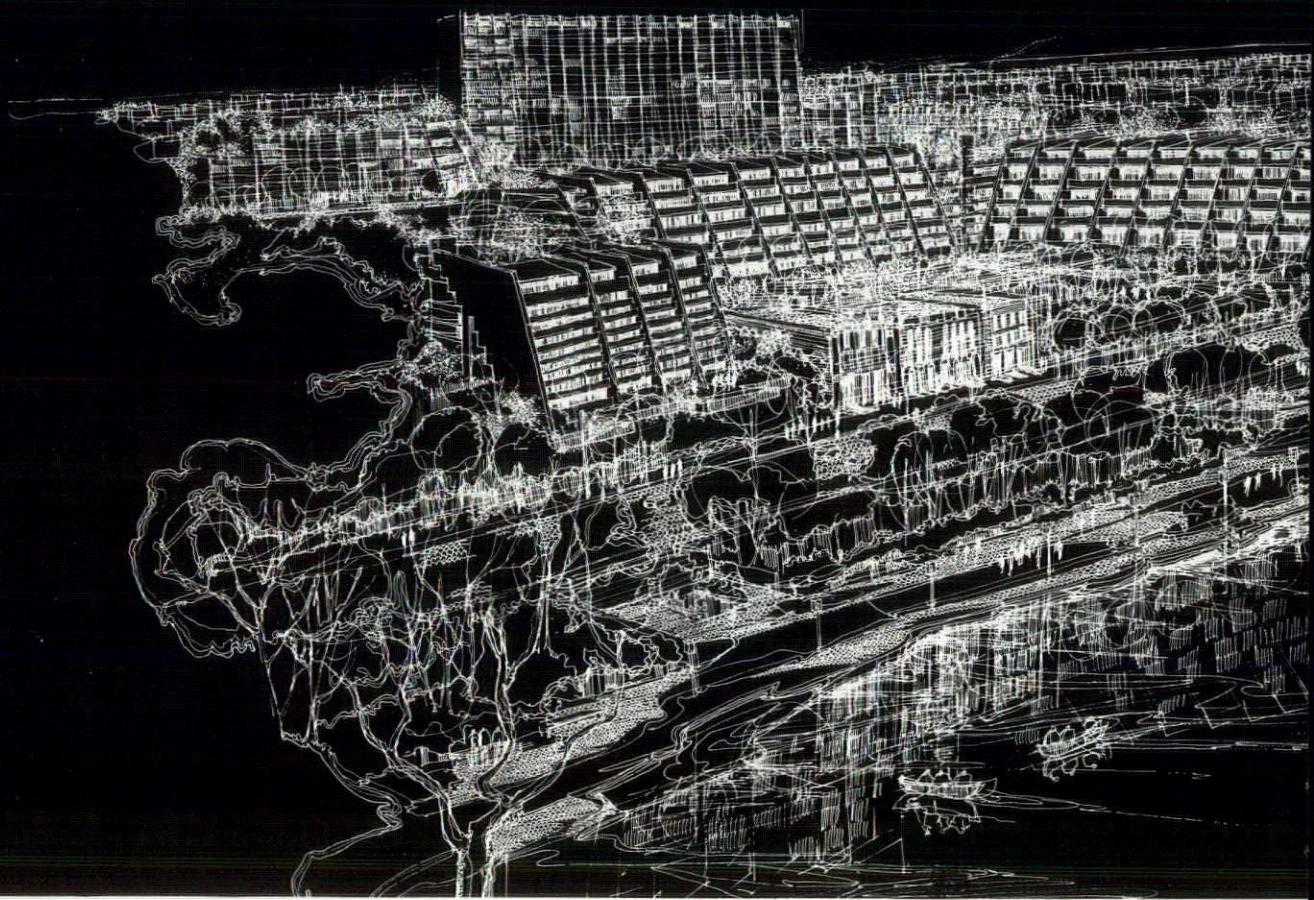
Restoration was designed to save everything of historic value, to rebuild as closely to the original as possible and to minimize disruption of the visual effect while adding the necessary spaces and functions to the historic building.

The restoration of historic buildings brings new problems to both client and architect. The challenge of remaining true to the original spirit is intensified when the architect's intent is no longer recoverable from plans or the remaining structure at the site. Given extraordinary skill, the remodeling architect may be able to appropriate the spirit of the original design and to extend it so that a balance is maintained and so that addition or subtraction of elements can be compensated for within the "redesign." The liveliness of the finished building is the crux of the mat-

(Continued on page 23)



University of Minnesota Third Annual Minnegasco Professional/Student



School of Architecture University of Minnesota

A Professional/Student Collaboration By James Stageberg

The Professional/Student Collaborative Prize problem originated three years ago to give second-year design students the experience of working directly with an experienced architect within a student team to solve a specific architectural design problem. This year 12 area architects volunteered their time to join the five assigned critics to form 17 teams. The 12 architects served without compensation and did not share in the prize money. Their return was service and a positive learning experience. Exposing more professionals to the School of Architecture, thus gaining their understanding and insights, is an important return for the school.

The design problem this year was to

James Stageberg is Professor at the School of Architecture of the University of Minnesota and in charge of the second year design program. He is also a partner in the Hodne-Stageberg Partners, Architects, in Minneapolis.

place 200 owner-occupied dwelling units on the two-block site along the north bank of the Mississippi River just east of Central Avenue. Architects generally know this as the site con-

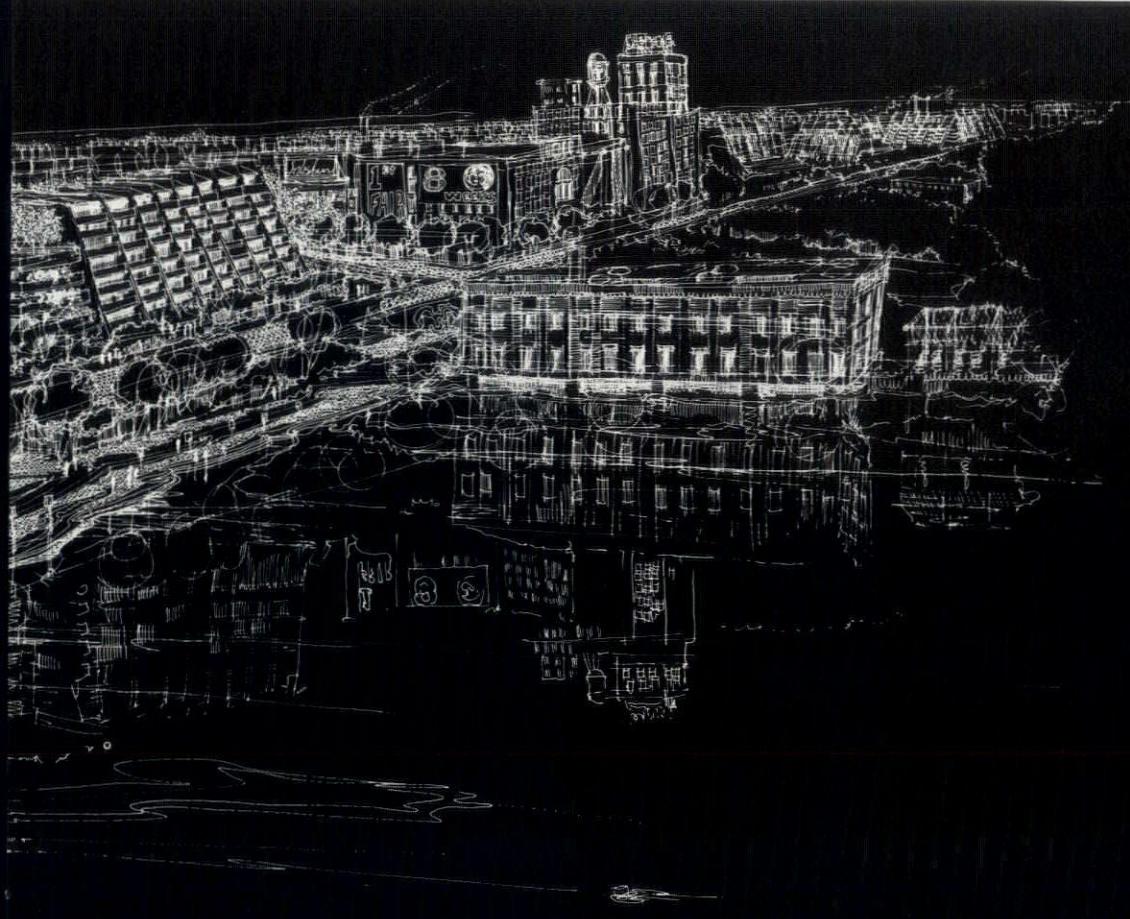
taining Peter Hall's house and Pracna on Main. The site offered great opportunities. Its location in a historic area, its relationship to the river and to downtown make it an ideal residential place. Several historic buildings occupy the site and offer a challenge for reuse. Main Street will be closed in the future. Beyond sensitive and quality living environments, there were two additional emphases. One was to bring nature into a more intimate contact with higher density housing and the second was to emphasize energy conservation through conceptual design.

There was a great deal of enthusiasm and ambition on the part of the student teams to accomplish great, new things in an area where their experience had been limited and to arrive at a fairly complete design solution to the various issues contained in the program.

A professional-student collaborative problem will again be given in the spring of 1974 and will again, hopefully, be sponsored by Minnegasco. This dynamic interchange between active, busy architects in practice and students of architecture makes for an increased vitality in both the schools and the practitioners' drafting rooms.



Collaborative Prize Problem



Professional Participants

Eugene Freerks
Vern Watten
James Stageberg
Jerry Johnson
Tim Geisler
Doug Foster
Eric Wheeler
Jerry Allen
Bob Hermanson

Student Participants

140 second-year design students

Chandler Sharma
Kay Lockhart
Dick Williams
Peter Hall
Jim Wengler
Bruce Abrahamson
Milo Thompson
Frank Nemeth

The following illustrations are excerpted from a number of the solutions. ■



The Jury: (left to right) Tom Hodne; Ralph Rapson, chairman; Walter Netsch and John Rauma.

(See team projects, page 26)

Activism in Architecture: The Community Design Center of Minnesota

By Gene S. Peterson

The Community Design Center of Minnesota will be six years old this spring. It was 1968 when Allen Ambrose, Alfred French, Milo Thompson, Peter Seitz, Wei Ming Lu, Dick Peterson, Dick Morrill and George Klein joined together to provide design services to those who could not afford them. With the philosophy that the design professional has a general responsibility to upgrade the physical environment, this founding group undertook such initial projects as an Aquatennial float for the Way Educational Center and rehabilitation work for the Way, the People's Church and the People's Cooperative Union. A limited budget to cover out-of-pocket costs was provided in those early days by the Center Arts Council.

Soon the need for volunteer design services demanded provision of space, staff and a working budget. The 1970 convention of the Minnesota Society of Architects gave CDC, which had now become a Minnesota non-profit corporation, substantial support by providing \$10,000. The Urban Education Center of the University of Minnesota and CDC found space at 118 E. 26th St. which fitted both their needs and cemented their cooperative relationship. Dr. Tom Walz and Lane deMoll became the core staff and CDC began to grow rapidly.

The Bush Foundation of St. Paul has provided a three-year grant on a matching fund basis. Individual and corporate cash contributors number more than 30. A number of building material suppliers, agencies, corporations, etc., provide various in-kind contributions.

Volunteer design services from professionals and students are, however, the essence of CDC and the cash and in-kind contributions make possible the circumstances and conditions within which the services can be rendered. Volunteers include engineers, planners and interior designers as well as architects; projects include public information and education, as well as designs for physical construction.

Currently CDC's projects and volun-

teers, as seen in the table here, number in the hundreds.

Professionals who have been actively engaged in CDC work find it to be a stimulating and valuable experience. A review of the list of volunteers reveals many repeat names year after year. However, there is still opportunity to add new names to the list.

proved by a screening committee which passes upon the basic question of whether or not the prospective client can or can not afford to pay for design services. Occasionally CDC projects generate contracts for professional offices. Often the CDC client is itself a non-profit venture providing its services on a volunteer basis. An example of a

Number Of New Projects Accepted

Low Income Dwelling Rehab	12	24
Non-Profit Agency Rehab	69	134
Neighborhood Advocacy	15	22
Public Information & Education	16	31
Graphics & Photography	52	85
Landscape Planning & Playlot	14	23
Engineer Consultation	7	10
Program Planning & Design	17	37
Total	202	366

Number of Active Volunteers		
Architects	74	101
Engineers	21	23
Planners	4	4
Graphic Designers	19	26
Interior Designers	10	16
Landscape Architects	10	16
Other	7	7
Students (estimate)	70	140
Total	215	335

After more than two years of dedicated and effective service Dr. Walz and Ms. deMoll have gone, Tom to become dean of the School of Social Work at the University of Iowa, and Lane to join Criteria, architects, and now, off to Oregon.

Elizabeth Robbins is now director of CDC and Craig Hess assistant director. Liz brings the experience of a rich and varied background to the directorship. Her activities in reporting, writing, design and development of instructional systems, etc., will all be helpful in meeting the challenge of CDC. Craig is not a newcomer; his experience as a VISTA architect and his continued dedication to CDC assure effective and innovative administration. Patricia Kundert has been a CDC'er for nearly two years and has gained a reputation for efficiency and equanimity.

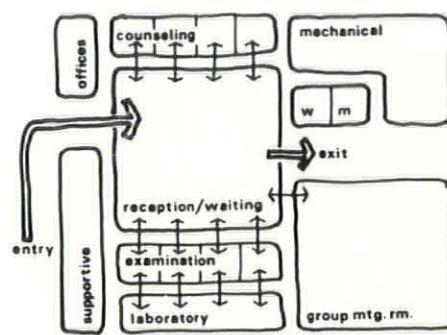
Consider a professional office with three full-time persons, 31 part-time volunteer staff and more than 200 professional volunteers handling more than 200 projects per year of wide diversity. The tasks of coordination, meeting time schedules, observing budget limitations, etc., are formidable indeed. This is what has been accomplished — response from professionals has been highly gratifying but the need for CDC services is greater than ever before.

Projects undertaken by CDC are ap-

CDC client is the *Family Tree*.

Founded in mid-1971, the Family Tree provides free medical and educational assistance to individuals who could otherwise not obtain such services. Just as architects, engineers, planners, artists, etc., provide volunteer services to CDC, so also do doctors, nurses, technicians, etc., provide volunteer services to Family Tree.

Beginning with an unused basement space in an older store front building on Snelling and Selby, the CDC design team, working with the *Family Tree* advisory group, evolved a simple and functional plan. Restrained by low ceiling heights, various plumbing protrusions, uneven floors and inconvenient columns, the design was nevertheless consummated and the first



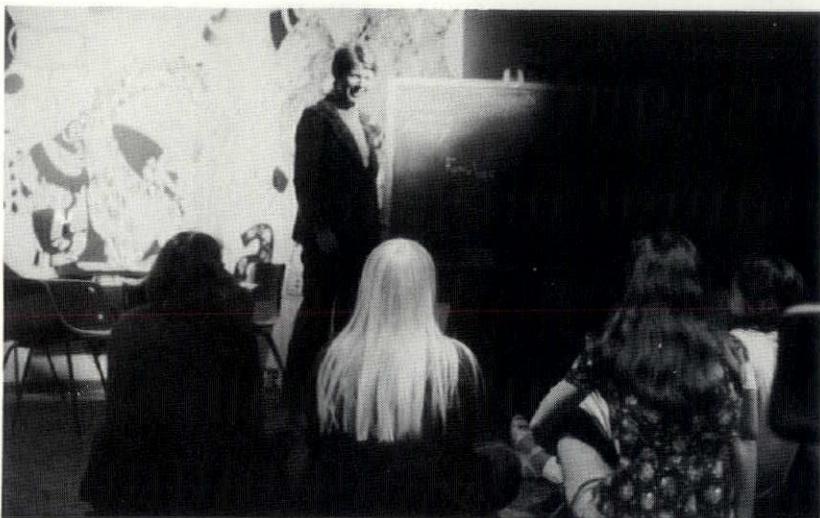
Gene Peterson is Vice-president of Adkins-Jackels Associates Inc., Saint Paul and a member of the Northwest Architect Editorial Committee.

clients received within six months. Success of the project is measured by a recent additional space acquisition and by the increase in the number of users, from 100/month to 400/month.

The entry is from a stairway which opens to sidewalk level. Entering the reception and waiting room, one finds a colorful and informal environment with furniture groupings designed for two to four persons. Small rooms for counseling and for taking medical history are on one side, examination rooms on the other. The laboratory runs across the back of the examination rooms and joins them together for efficient medical service. Offices and support facilities flank the stairway. A large

space at the back has recently been added to provide group instruction, staff meeting space and audio-visual facilities.

One doctor and one nurse are paid to be in attendance during all clinic hours, approximately six other doctors and six other nurses volunteer time regularly to supplement the basic staff so that adequate service is always available. Equipment and supplies have come from St. Paul Ramsey Hospital, Minnesota Department of Health and other sources. A number of non-profit organizations provided construction funds and continue to provide operating funds.



Director's Column

What is it like to be a non-architect and enter the preserve of architects? This is a reality I have been experiencing for the past five months as new director of the Community Design Center. The experience has been and is: complex, many-faced, agonizing, joyous, and amazing.

To my amazement, there is a tremendous load of work completed by the professional volunteers and students who work out of the center. Students are of upper division design under the Action program — Vista and University Year for Action Volunteers, and those from the Urban Education Center currently enrolled in the School of Architecture at the University of Minnesota who gain field experience by working on CDC projects.

The CDC has recently submitted a 10-month report of work completed by the UYA Volunteers. This entire magazine is scarcely large enough to record all the information about the projects these men and women have carried out.

Here is just a part of the list of accomplishments (the total impact can be realized only by coming in to CDC to read the report): completed the Basic Homes user study and market analysis for low-cost rural prototype housing; investigated, documented and reported complaints in "235" housing; designed two new buildings; completed six community planning designs, four community garden projects, three playlots, five site analyses and one grounds improvement; completed seven rehabilitations; recycled sixty pieces of furniture; completed thirty interior designs; conducted eighteen classes or clinics; developing eight comprehensive curricula; made fifteen new services available to the low-income community; provided eight new skills to the target population; were responsible for raising \$96,000 and a possible additional \$145,000 for the target population; involved over twenty different professions or skills to serve the target population.

These UYA students number less than one-fourth of the total number of students at CDC. And that doesn't include the heavy workload carried by more than 200 professional design volunteers.

What is our most significant project? That we are the means by which all this happens . . .

Elizabeth Robbins



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Instead you treat us like dirt under your feet.

Nevertheless we will do our best by you as long as our health permits.

Even though you don't always deserve it.

After all you are still our patron.

Sincerely,
Jack

New Learning Spaces And Places

By Donald J. Christensen

"Architecture by lay-out . . . an ad lib with inexpensive materials . . . it's just an exploration . . ." is how Mari D'Alessandro, a recent Hamline graduate and current volunteer tour guide at the Walker Art Center describes New Learning Spaces And Places. The exhibit is showing the 27th of January through the 10th of March at the Walker Art Center in Minneapolis. It is designed by Hardy Holzman Pfeiffer, Associates—Architects, in cooperation with the Minneapolis Public Schools.

Display items represent public education over a substantial period. Personnel and memorabilia from Minneapolis Schools are used throughout the display. Superintendent Davis speaks to the timeliness of the exhibit, noting concern that education be responsive to genuine needs of people, individually, and to the greater needs of society generally.

As comment addressed to the exhibit's intention, Dr. Davis notes:

"The idea and reality of entropy, that is the inexorable movement of the universe and its parts to more and more disorganization, has its analogy and counterpart in our existing institutions and organizations. We always need then, new islands and patterns of organizations to ensure ordered strength and new relationships to extend our future."

The exhibition features provocative configurations of complicated technological apparatus bound together with a traditional "spine." The exhibition attempts to challenge the educational enterprise to abandon the archaic "... rectilinear enclosed classroom . . . (found within) schools made of bricks, plaster, and asphalt tile . . ."²

In their introductory remarks, the exhibitors distinguish between architecture as monument and architecture as environment.³ Architectural monuments are appropriate acknowledgements to the wit of creators, builder, designer and community. The environment, however, is a coordinated set of systems to support

Dr. Donald J. Christensen is Director of Curriculum and Instruction for Independent School District # 196, Rosemount, Minnesota. He was also the author of "A Curriculum of Reality" published in the *Northwest Architect*, Volume XXVI, Number 6, November/December 1972.



Sewer culverts housing a cybernetic toy called the "Turtle."

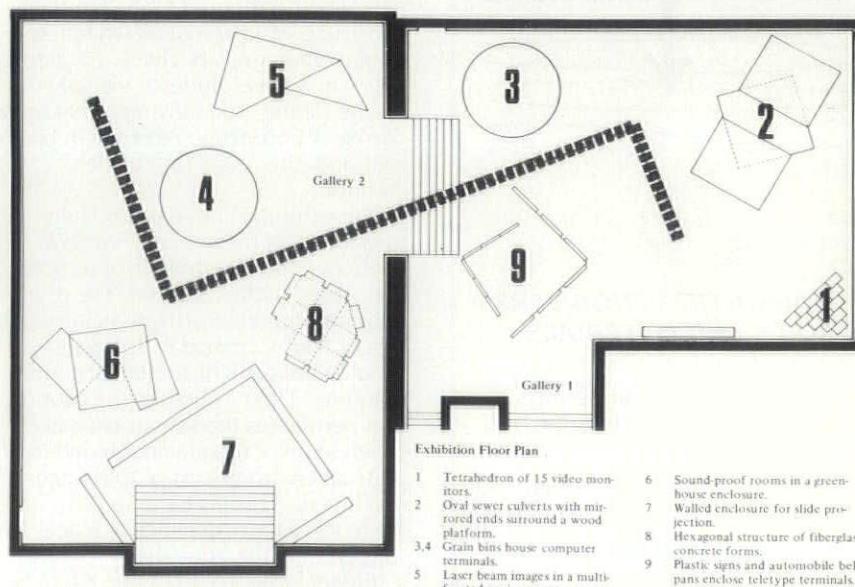
productive interactions between student and stimuli. Representing the architects' environmental notion in the exhibit, are nine "experience places." Each "place" offers a curious entity. Common, inexpensive housing surround uncommon, costly technophilia. The "place" numbered "2" is called the "Turtle: a cybernetic toy that draws geometric shapes."⁴

Nestled between open ends of two adjacent pieces of glistening galvanized sewer culvert is a raised deck where the "turtle" moves about its world of about 50 square feet. The "turtle" is about the size of a Northern Wisconsin Snapper. In this case, the Walker Snapper shows

a many colored wire and semi-conductor viscera beneath an ubiquitous plastic dome. What can the "turtle" do? When given instructions by way of a signal entered through a machine resembling a portable typewriter at the periphery of the "turtle's" world, it will move about and draw a pattern. The young student operating the "place" indicated the "turtle" was capable of "telling you how to shoot a cannon."

Elsewhere in the exhibit, "experience place" numbered "5" offers "Holograms: three dimensional images seen through the use of laser beams."⁵

(Continued next page)





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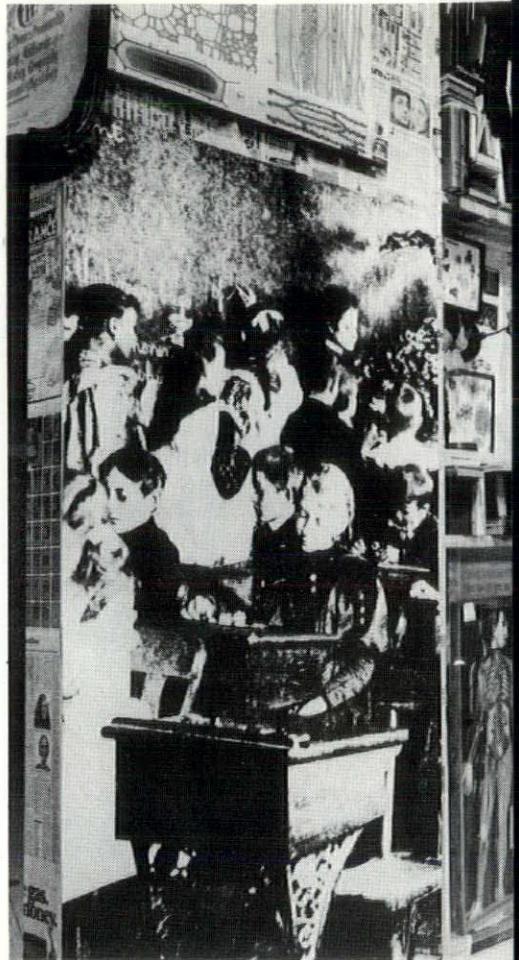
Images in fascinating red light are visible in a darkened Butler grain bin. Video tapes played on equipment in small modules (that would comfortably house six or eight people for a common activity) make a private learning environment for small groups at "experience place" numbered "6". The content played on the video tapes shows groups of students drawing upon indigenous community resources during learning experiences. In this "experience place" both learning module and video equipment constitute an attractive environment.

The remaining "experience places" show additional avant-garde equipment in creative display. A continuous slide sequence illustrates unique learning environments with artistic color photography. Computer terminals in four "experience places" suggest a variety of activities, including simulation games in management of resources, mathematical gaming, complete instructional systems in several content areas, and a storage area for information on learning resources to be tapped for individually identified needs.

The exhibit's "spine" suggests perhaps, architectural monument as forwarded by the exhibitors. The "spine" is a wall of easily recognizable educational trappings that chronologically and geographically tie the exhibits together. Indeed, the wall will evoke fascination equal to that in any "experience place." An elegant stone water cooler, circa 1930, prompted an obviously sophisticated visitor, "ah . . . look at the beautiful old crock!!" Pictures, documents, books, and other school furnishings illustrating a span of several decades, cover the 'Z' shaped wall from floor to ceiling.

The dominant element on the "spine" is books. In the milieu of computers, television, and laser, one visitor noted that "feed back" from a computer program on a CRT is callous and shallow, when compared to the limitless constructs of imagination while responding to cavortings of characters across pages in a novel. Indeed, the volumes on the "spine" squarely represent an ordering of knowledge recorded in books that underlies even the "turtle's" creation.

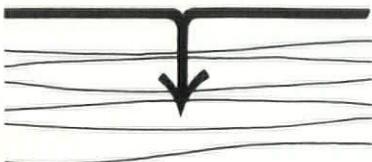
The exhibitors have successfully presented, as they assert, "symbols" to challenge the imagination of persons concerned with education. The display does not intend to present a classroom, school house, or model. The display should challenge dusty thinking and planning. There is however, a caution that permeates the serious educator's observation of the glamour found in unusual environments or space age machinery. This visitor asked six students in four "experience places" to suggest how the equipment could assist a student, who, for example, might be a



Environment containing the "Learning Resources Bank" where visitors can get a print out of area locations in the Twin Cities where individual interests can be pursued.



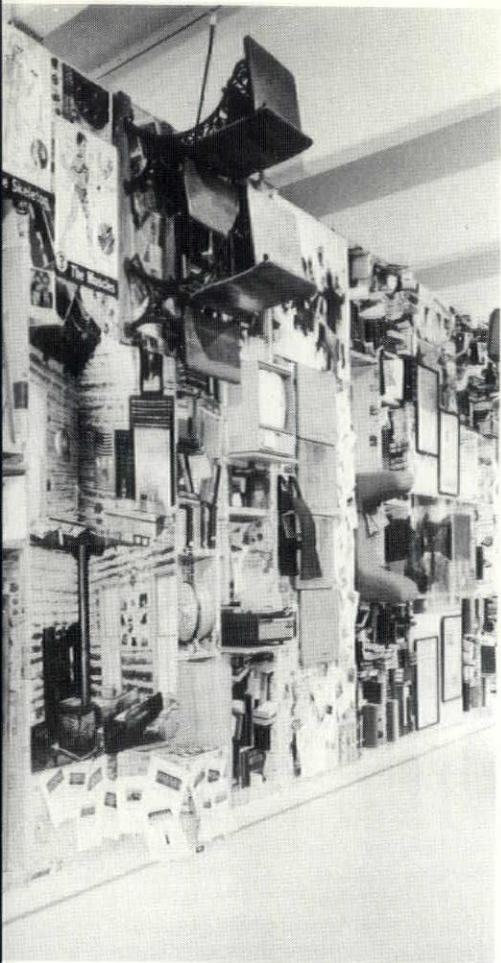
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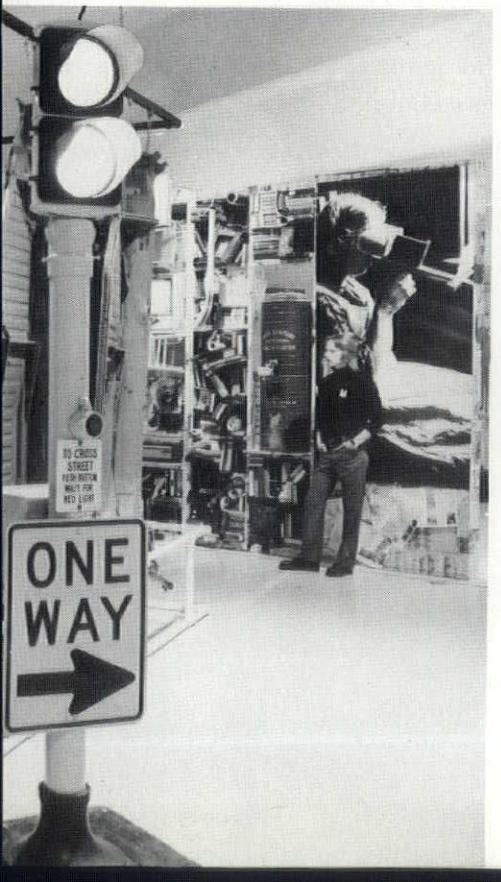
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"The Wall"

Photos by Eric Sutherland



ninth grader, having been in public school for nine years but did not know how to read, or how to do simple arithmetic computation.

In each case, the student attendant indicated his particular activity could not address that problem, but suggested another "experience place." There appeared to be no place in New Learning Spaces And Places to deal directly with the ninth grader's problem. Perhaps this experience suggests that the media shown in the exhibit might be questioned for their potential to address specific educational objectives. There is a danger that dramatic means may confuse achievement of specific educational goals. *It is creative orchestration of behavioral science, equipment, materials, and human compassion, within a supportive environment that offers greatest promise for education.*

The referent for examining any educationally related phenomenon must be its direct relevance to the reality of the educational scene. The issue regarding the "turtle" then, is not of its ingenious creation or capability, but how can the "turtle" (or the principles and ideas embodied in the "turtle") assist children to learn the names and sounds of letters for reading, or encourage a disinterested early teen-ager, or stimulate an able high school student to productive, satisfying pursuits. A real contribution of New Learning Spaces And Places might be to precipitate meetings among architects, first grade teachers, superintendents and the "turtle's" creators. Such meetings would attempt to apply the "turtle" in a challenging environment, managerially sound, to matters related to teaching reading to little children: (assuming of course, that instruction in reading continues to be a high priority objective for any community or school system).

Moreover, the examples at each "experience place" suggest a structured content, built to accommodate the capacity of each piece of hardware. There is an implication for curriculum building in these examples. Is curriculum generated to fit the capacity of a particular piece of equipment or system? The converse should be the case. Is there provision for substantive inputs by community, educator and learner into the "turtle's" curriculum? It was not evident.

No creative idea will reach fruition without carefully attending to cost-effective aspects of its implementation. New Learning Spaces And Places purports to suggest inexpensive learning environments from common materials, e.g. culverts, fiber glass forms, and grain bins. In those inexpensive casings, however, such items as the "turtle", "Plato", and laser beams are in and of themselves, hardly inexpensive.

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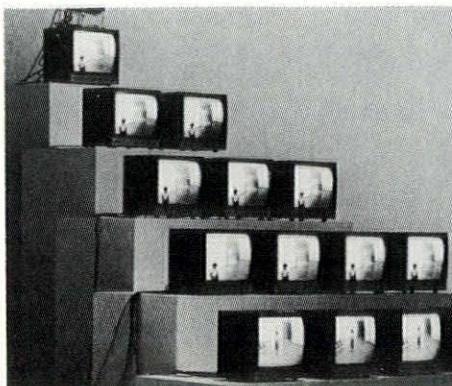
Curiously, in the public school situation, the school building is the least expensive piece of the public school district's operation. Indeed, the school building itself is nearly a negligible portion of the total expenditures for public education.

A brief perusal of any public school district's budget will reveal that the majority of monies annually expended are for people services; two-thirds to three-fourths of district budgets are usually for salaries. Budgeted monies for construction or purchase of buildings and sites will seldom comprise but a few percent, over the long run. The thoughtful educator, when visiting New Learning Spaces And Places must view the "experience places" from a perspective of application within the portion of school matters that constitute the real costs for education. How will the "turtle" and his or her companions facilitate the use of teachers' impact on students' achievement of curriculum goals? Perhaps the "turtle" and company can have an impact on the superintendent's office and offer creative design for management in curriculum and instruction.

In any case, New Learning Spaces And Places is a proper experience for persons involved in education. Whether traditional conservative or futuristic liberal, New Learning Spaces And Places will nurture the spirit. There is a delicate balance between immediate rejection of new ideas as inappropriate to educational goals or as exorbitantly priced, and enamored attraction to that which departs from classroom routines. The artful educator visiting New Learning Spaces And Places should draw from both perspectives and produce a direction yet unknown either to "turtle" or teacher.

References

1. John B. Davis, Jr.; *Design Quarterly*. Walker Art Center, Minneapolis, Minnesota 55403; 90-91; p. 5.
2. *ibid.*, p. 11.
3. The exhibitors have described the show, along with a detailed and documented rationale in an 85 page document *Design Quarterly* 90-91 that is available at the Walker Art Center for \$4.00.
4. *ibid.*, p. 14.
5. *ibid.*, p. 14.



Track/Trace, a video work by Frank Gillette



Photos by Gerald Gustafson



Team 70 Architects St. Paul

Let There be Neon by Frederick W. Appell, Jr.

Neon lights have a way of being fascinating even when they are ugly, a fact which artists and architects are beginning to discover only after the medium has been ruthlessly exploited commercially. The stuff is intrinsically lovely. It is pure color, lit from within. Because it is not modified by reflected light like other colored surfaces, it is not only luminescent but truly a pure color.

There is a growing neon fan club, true lovers of the "art", who will take neon where they find it. This month the Dean Gallery in Minneapolis has round-

ded up a survey of local neon, with colored slides representing large installations, brought smaller pieces to the gallery at 2815 Hennepin Avenue, and shipped in a bargain priced collection of multiples from the New York Let-There-Be-Neon Gallery. Artist promoter, film-maker, video technician—Rudi Stern was in Minneapolis for the opening and made a video-tape for a "human sexuality" project at the University of Minnesota. His pieces are beautifully finished, elegantly mounted on bases which hide their transformers. He made them suitable for the modern drawingroom or replacements for the electric log fireplace. The products of Rudi's neon shop are clever, but they seem to be only the slightly sensual, after-image of an idea, like the imprint of lipstick on a tissue.

Side by side facades for the Blue Chip and Green Lantern restaurants on

Fred W. Appell, Jr. is also the author of the article on the Merchants National Bank in Winona. See page 8.

LET THERE BE NEON

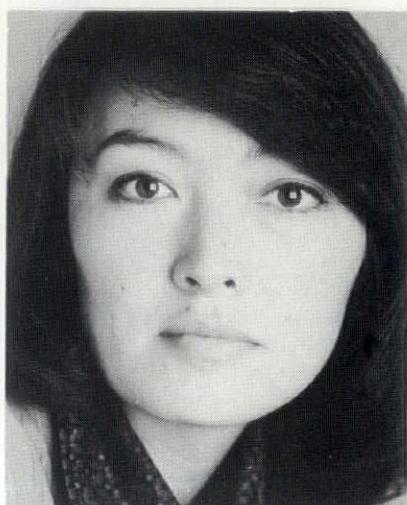


Cedar Street in Saint Paul are included in the slide show. Designed by Team 70 Architects of Saint Paul, they show neon used in an innovative and exciting architectural application. The semi-circular marquee is composed of multicolored neon tubes massed in three dimensions, so that the neon light becomes both its own light source and color, mass, and detailing.

Shiela Chin, Minneapolis commercial artist, has a friend who collects old neon signs. She designed "Flag" and a blue neon tube which spells it all out, "Art". She has picked up the linear language of traditional neon sign making represented in this show by an old sign from Irving's Delicatessen in Brooklyn and used it with a wry sense of humor.

The two sculptures by Michael Proulx are pure poetry of neon and plexiglass reflecting on one another and by repeated elements making mirror images without mirrors. They are the only work Proulx has done in neon, which is a shame because his sensibilities are good. He stopped working with neon because fabrication costs of \$400 to \$500 a piece were beyond his budget as a painter. However, Rudi Stern has gotten the price of his simple neons down for the young collector by using production methods.

The show runs through the month of February. After that, check with 118 An Art Gallery, Minneapolis, for a neon show from the shop of Minneapolis School of Art teacher Crok Marchesci. Two other pieces by New York artists are included in the show: Ron Steinhilber, "Tomato", and Joe Augusta, "Mountain Climber".



Shiela Chin

FRACTIONS

are all you save

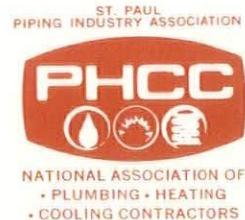
. . . when you separate mechanical/electrical contracts from general construction. But when total building costs amount to hundreds of thousands of dollars, or more, fractions become very significant.

Of all the reasons to accept separate bids, cost reduction is the most important. Construction cost data from across the nation prove conclusively that separate bids, separate contracts result in sizable savings. The fractions may be small, but the dollar amounts aren't.

Seeking separate contracts saves dollars simply because competitive bidding is opened to all qualified contractors. The middleman is eliminated, and specific costs of the three prime components of construction are clearly defined for owner and architect.

Specialists are employed to do highly specialized work at bid prices. The quality of construction and installation rises and the cost decreases — if only by a fraction.

That may not seem to be much, but owners and architects who pay attention to fractions have found that whole numbers take care of themselves.



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National Bank of Winona

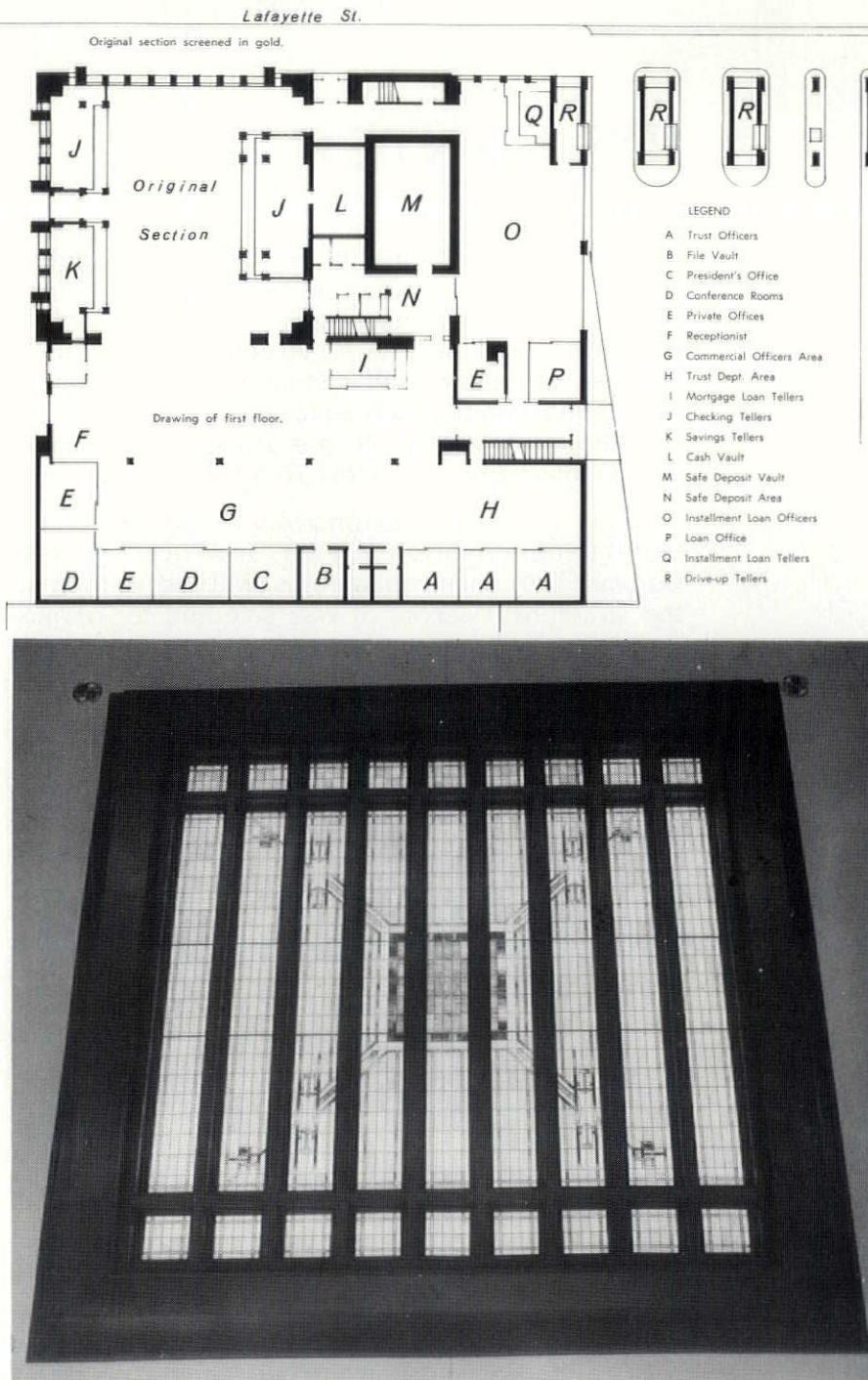
(Continued from page 11)

ter. Some buildings are so altered in the process of restoration that they seem half dead. Fortunately, the Merchants National Bank is not one of these.

Growing public interest in preservation of the buildings which constitute our architectural history will hopefully encourage adequate expenditure of public monies necessary to subsidize both public and private restorations. HUD is participating in a limited way in the restoration of the Winona Court House, a project of the Minneapolis firm of Horthy and Elving. Since the functions that historic structures must

serve are today different from those for which they were designed, it would be nice if buildings with important interior spaces could eventually be made available to those who can use that space sympathetically.

Nothing will ever take the risk and the fun of the unexpected out of restoration. Gordon Espy of the Merchants National Bank was plagued with the problem of getting rid of an old safe that was too big for the new vault door and too tough to be cut up and removed. Eventually, he cut through the wall of the new vault to remove the safe and leave it as a decorative and historic element on the remodeled banking floor.



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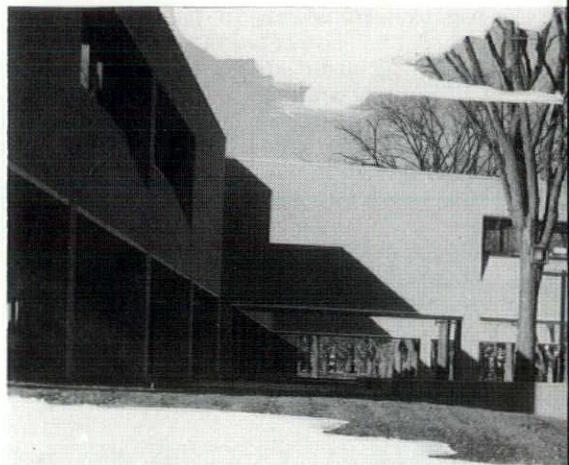
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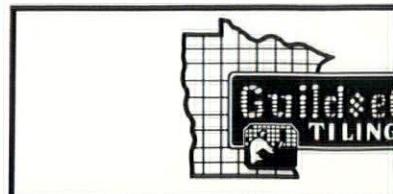
CERAMIC TILE — HIC



IDS CENTER

Occupying a complete city block, the IDS Center's most distinctive feature of its four building complex is 772 foot office tower occupying about 1/3 of the site. The 19 story hotel structure also houses banking, savings & loan institutions and numerous retail shops which open onto various levels of the Crystal Court. Architects are Baker & Associates and Johnson-Bourgee (New York City).

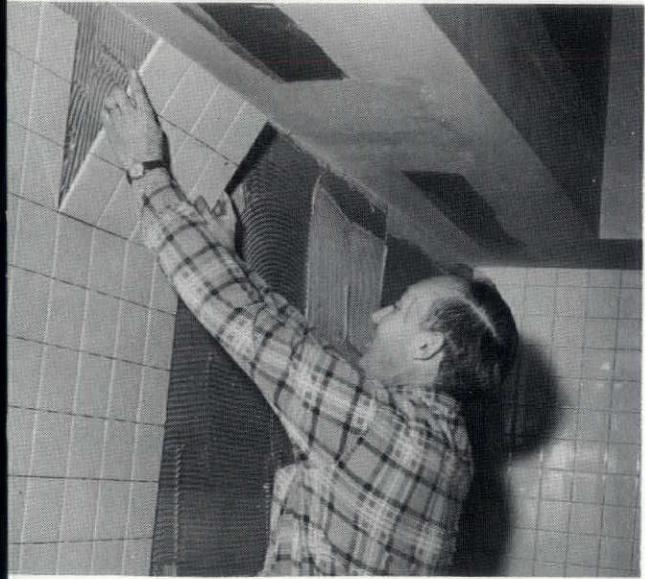
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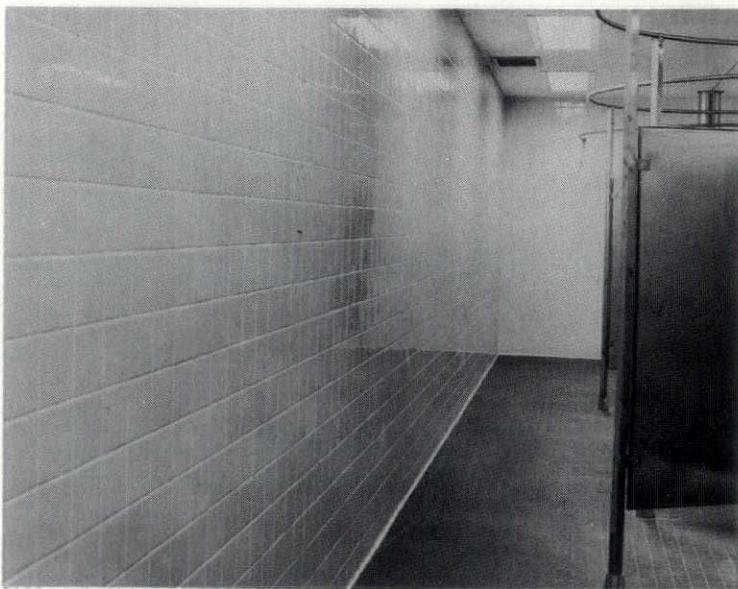
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Covering a four-city block area with a mall down the middle, Minneapolis new North High School is constructed of re-enforced concrete and has a brick exterior face. It is designed for community functions as well as scholastic use. Now comprised of two "houses" each, accommodating 900 students, it will permit addition of a third similar unit.

Architects are Larson and McLaren and C.R.S. Architects, Houston.

Ceramic Tile is used extensively in the corridors and laboratories of the new North High School. Ceramic Tile in this new facility will resist scratches and spills; will never fade, change color or stain.



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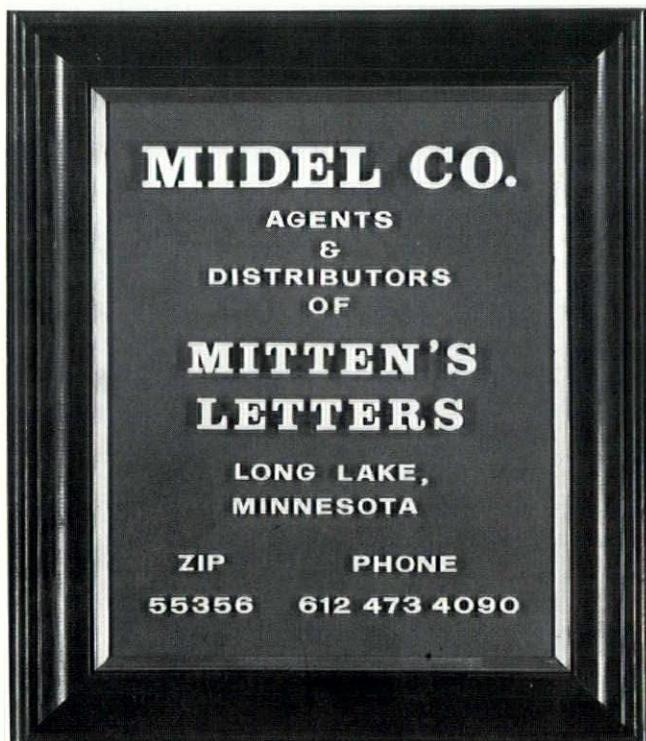
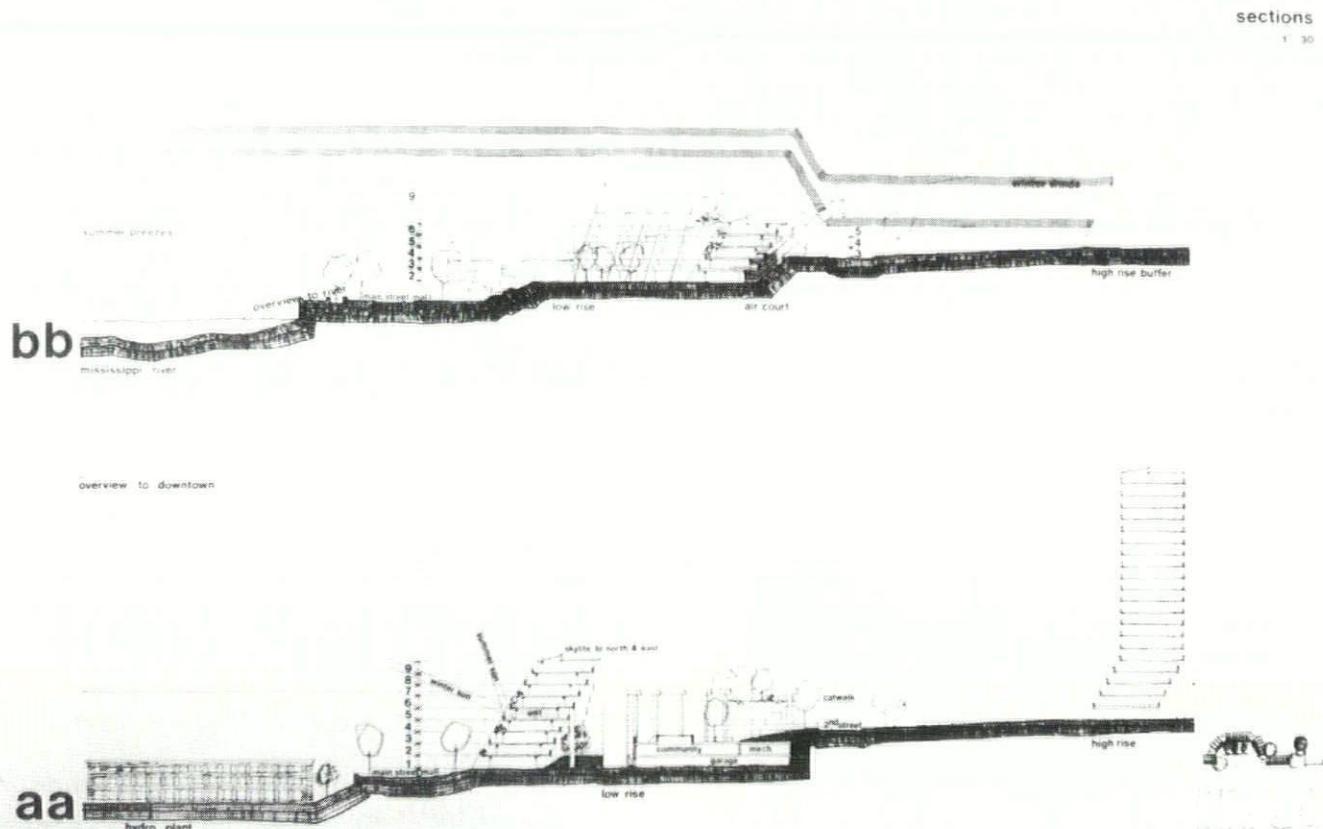
Team Projects

(Continued from page 13)

Team 4

"A most thoughtful and resourceful proposal, generally an excellent scheme indicating considerable research and concern with energy conservation. However, the immediate site, i.e., the court and community areas do not have the richness and promise demonstrated in the rest of the proposal . . . Excellent presentation."

Jury comments



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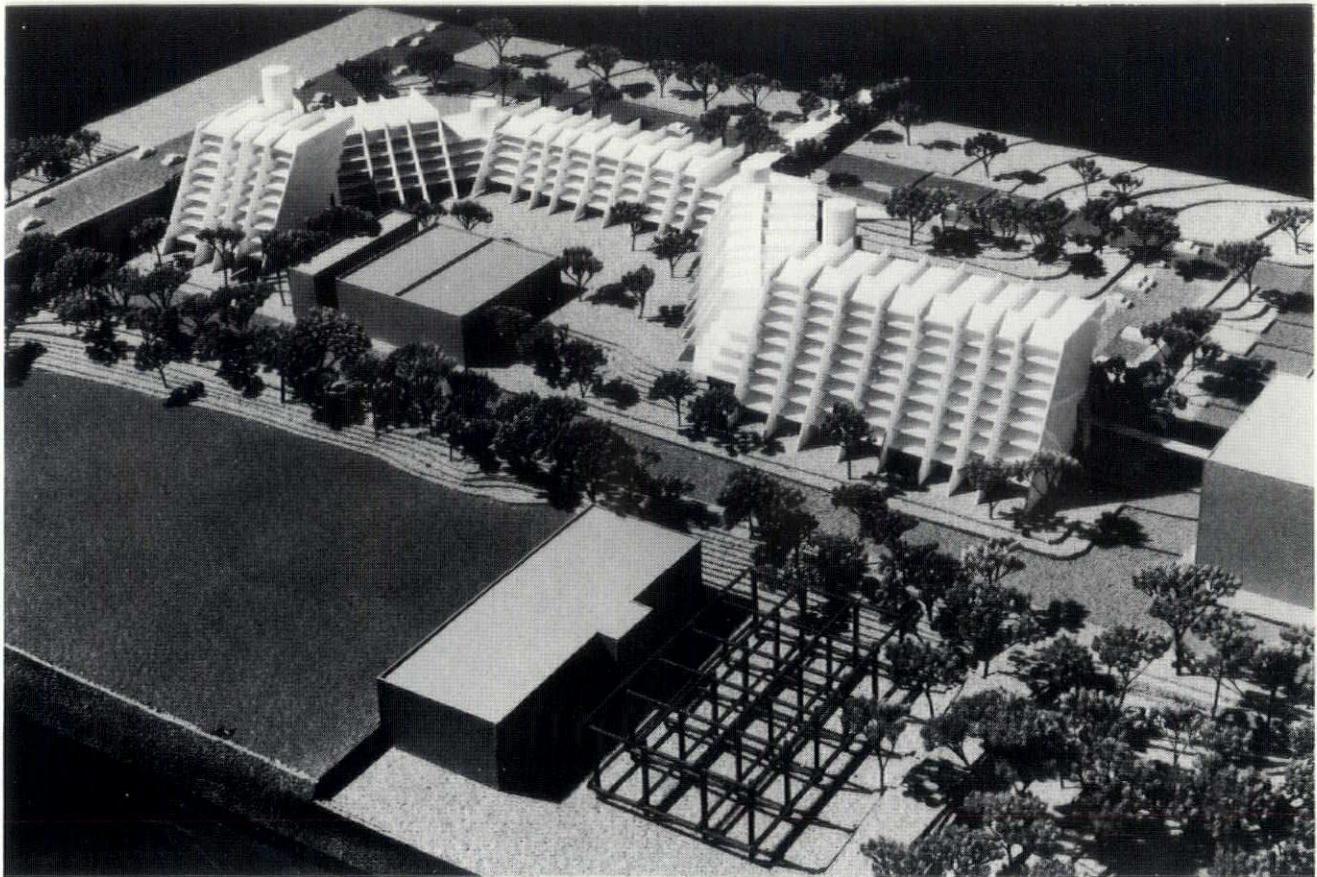
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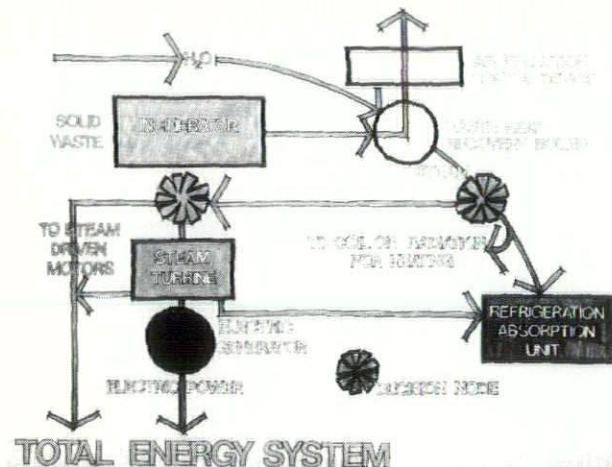
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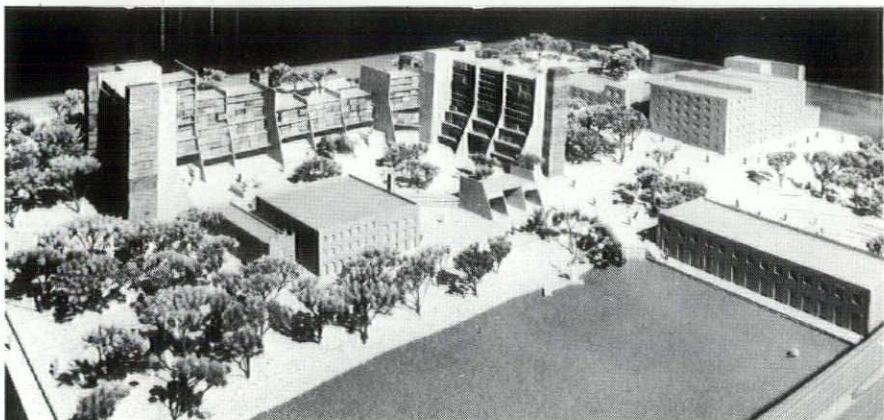
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RIVERFRONT HOUSING STUDY

Jury comments

"Excellent research which apparently has somewhat dull architectural solution appears to have little relation to the excellent and detailed research. Site organization around the edges and focusing on the existing structures is good. Complete project."



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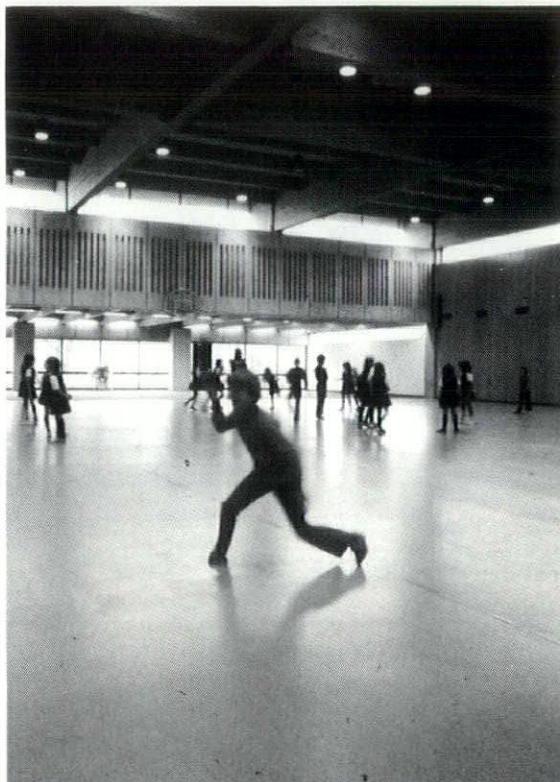


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First Place

Team 8

Team comments

The concept was to design an environment which would acknowledge the developing old town by the river and to explore the energy conservation portion for the project requirements.

In acknowledging the old town we choose to emmulate its spirit of pioneering rather than to copy its poems. Hence, the concept was to design a living learning center, to begin the process of an intergrated approach, and to studying man and his built environment.

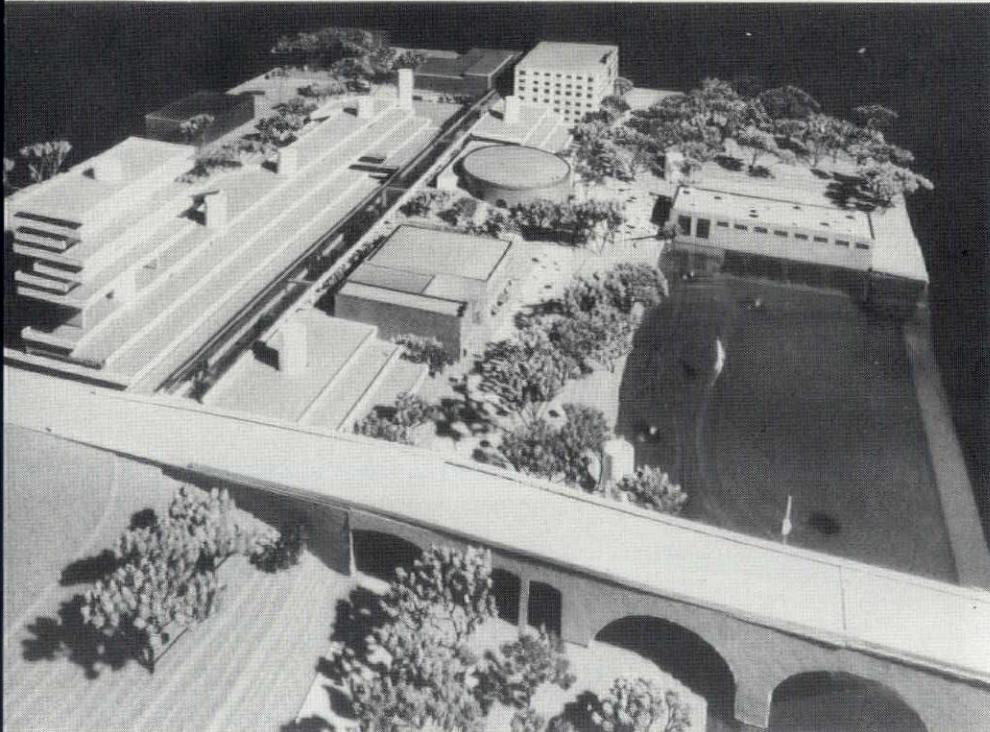
In practice people from all walks-of-life (scientists, artists, workers, students, etc.) would rent a certain square footage with the understanding that they would be part of a experiment plus

doing their own studies and work.

The structure is a simple post and beam to allow for flexibility in arrangements and lifestyles, for example one area maybe set up as a communal experiment while another a video community with no direct outside human contact, yet another underwater. The results would be recorded and studied. Flat surface area would be planted in order to examine what effect building has upon the basic natural things a plot of ground does if left alone.

The idea in total was to create an area with an identifiable common interest, hence a neighborhood complete with living, working, pubs, recreation, entertainment, a heritage, a future . . . "The New-Old Town."

Jerry Allen



Jury comments

"A strong overall proposal demonstrating thoughtful consideration of a wide range of energy factors. The solution offers variable living alternatives and outlines numerous experimental proposals which give promise for quality living. Although somewhat crude the "non-building" forms are appropriate, and compliment the totality of the project."

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Team comments

This concept grew out of a commitment to maximize energy conservations systems and develop housing units that would capitalize on the river vistas with views and private outdoor spaces.

The housing units were developed in a stepped terrace system, linking the river to higher density housing further back and providing private green spaces facing the river with parking tucked in behind. The parking, then, requires no mechanical ventilation and has direct access to the housing units themselves. Access to each unit occurs through corridors heated only by the sun through an operable greenhouse component continuous glazing system that utilizes solar heat gain in the winter months and can be opened in the summer to maximize natural ventilation through the dwelling units.

All rooftops are planted with sod for maximum insulation value while providing a dramatic green terrace down to the river from the units above. Sheep graze on the rooftops, keeping the grass trimmed and providing additional fuel for the methane gas generator. The rooftops also provide a gardening option for the inhabitants while trees and a louver system further eliminate heat gain in the summer and maximize it in the winter.

The core of the energy system is a

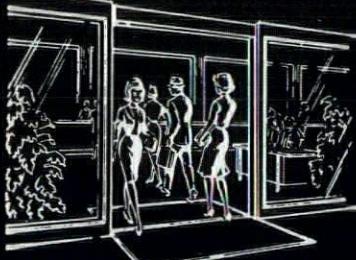
continuous hyperbolic mirror that runs the full length of the development. This "energy tube" adjusts to the sun's angle through a system of weights and gears and focuses the sun's heat on a continuous pipe containing circulating water or heating fluid. This fluid is stored in a holding tank below grade and through a gravity system heats the units. The holding tank is encased in the methane gas generating tank utilizing the escaping heat from the methane process to further heat the water. The methane gas generated by the distillation of human and animal wastes provides cooking fuel for the development.

"An excellent proposal with high quality overall development. The reasonable utilization of new techniques has extremely practical implications, yet excessively expensive net to gross aspects. The entire project is well conceived and has good character".

Jury comments

Team 6

SLIDE 'n' SWING AUTOMATIC SLIDING DOORS



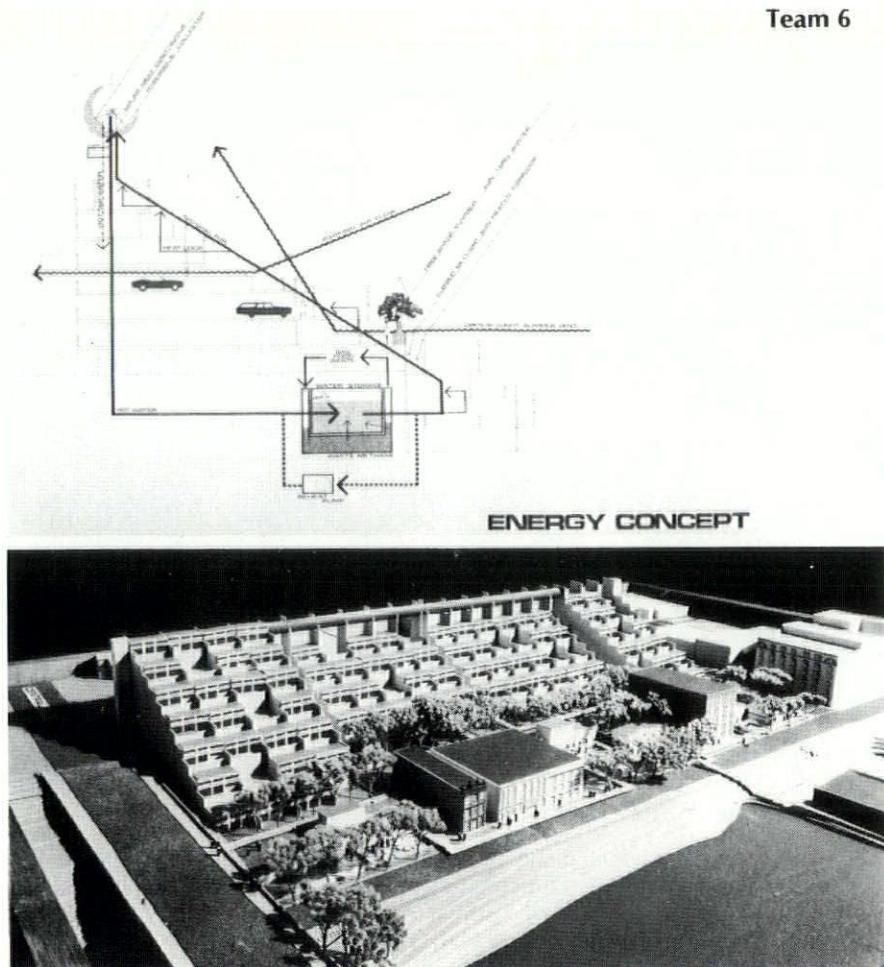
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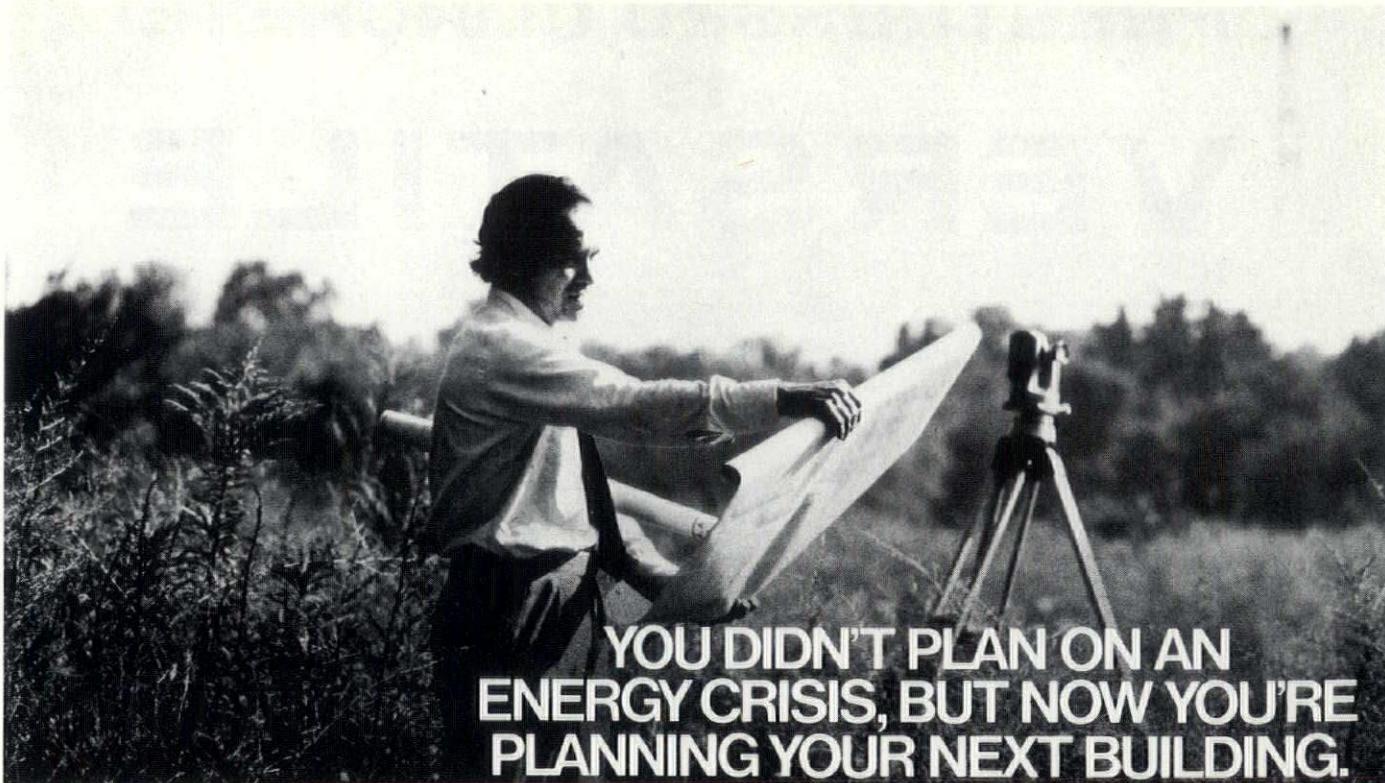
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In the case of the masonry wall, cooling equipment with a two-ton capacity can handle the heat gain. But with the double-plate glass wall, about 143 tons of cooling capacity will be needed.

An analysis of a typical 10-story building shows that over its useful life, the air-conditioning cost for a square foot of our masonry wall will be about 23 cents. For the double-plate glass wall, it will be \$7.60.

It takes a lot of money to buy, install and create space for all the extra air-conditioning equipment

required by the double-plate glass wall. A lot of money and a lot of energy to run that equipment.

Compare the heat loss in winter. It has a dramatic effect on energy consumption and building operation costs.

Our masonry wall, for example, has a "U-value" of .12. The double-plate glass wall has a "U-value" of .55. (U-values are used to determine heat loss through one square foot of wall area in Btuh per degree Farenheit differential across the wall.)

This means that the masonry wall is about 450% more efficient, on the average, than the glass wall in reducing heat loss.

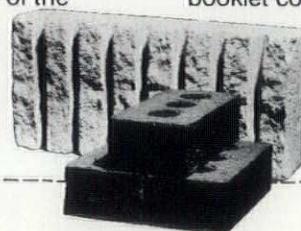
Over the useful life of the building, the heating cost per square foot of wall area for masonry will be about 30 cents. For double-plate glass, about \$1.38.

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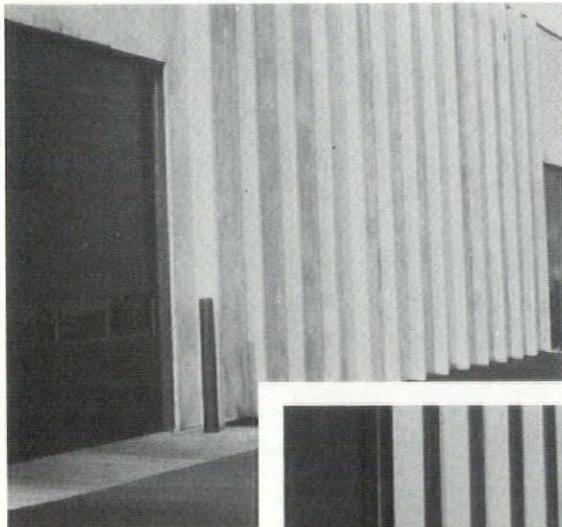
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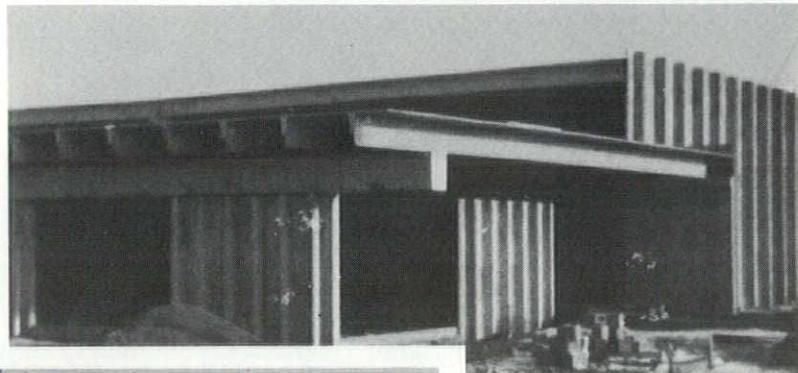
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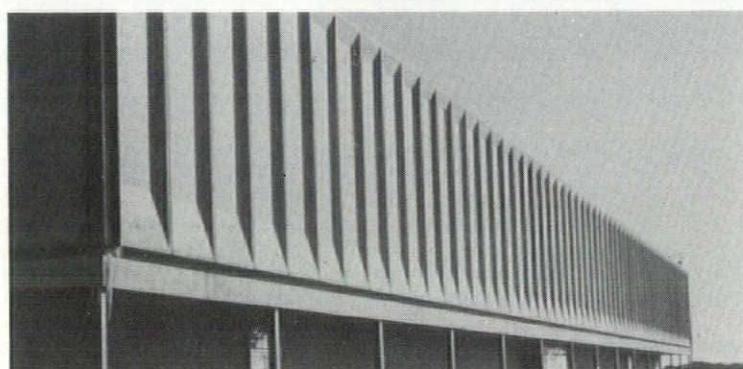
▲ Frame
Openings



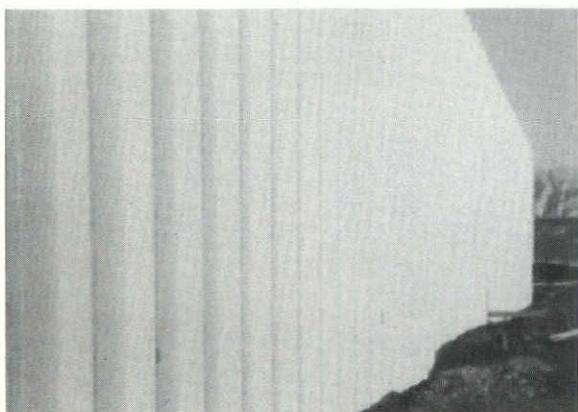
▲ Floor

Roof

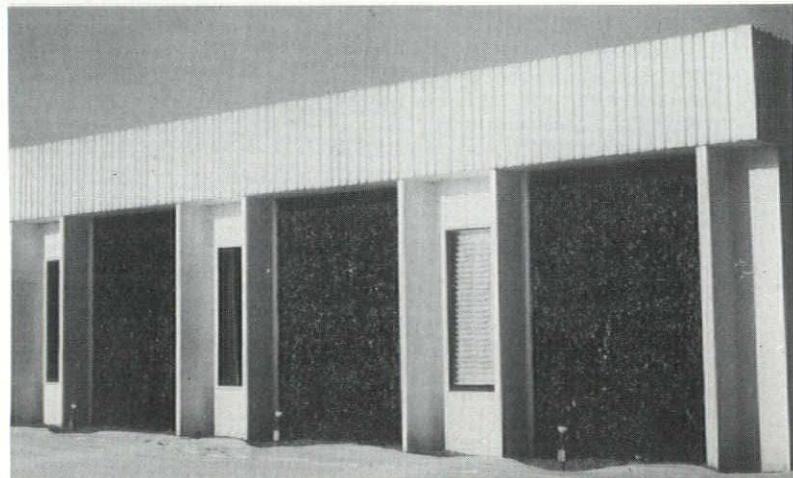
Walls



▲ Plain Wall
Stems 7-1/2' O.C.



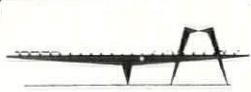
▲ Insulated Plain Wall
Stems 4' O.C.

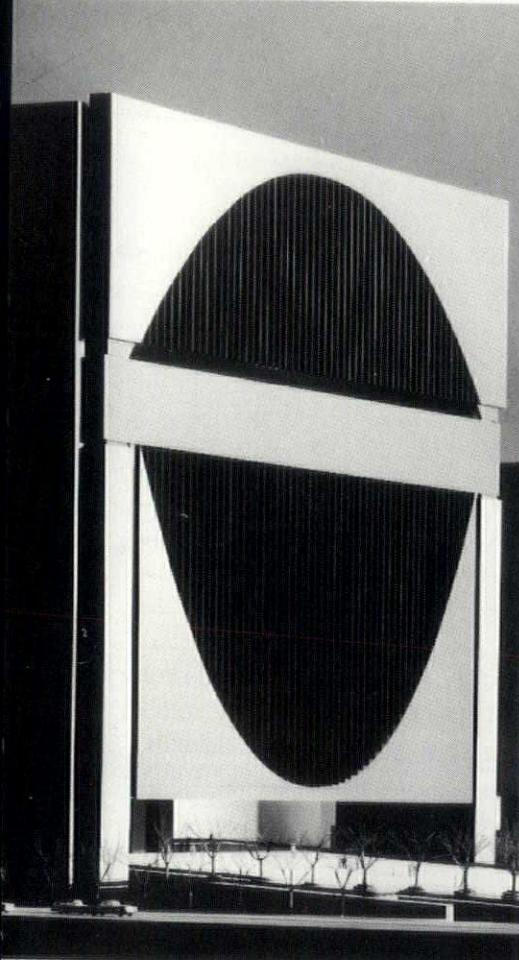


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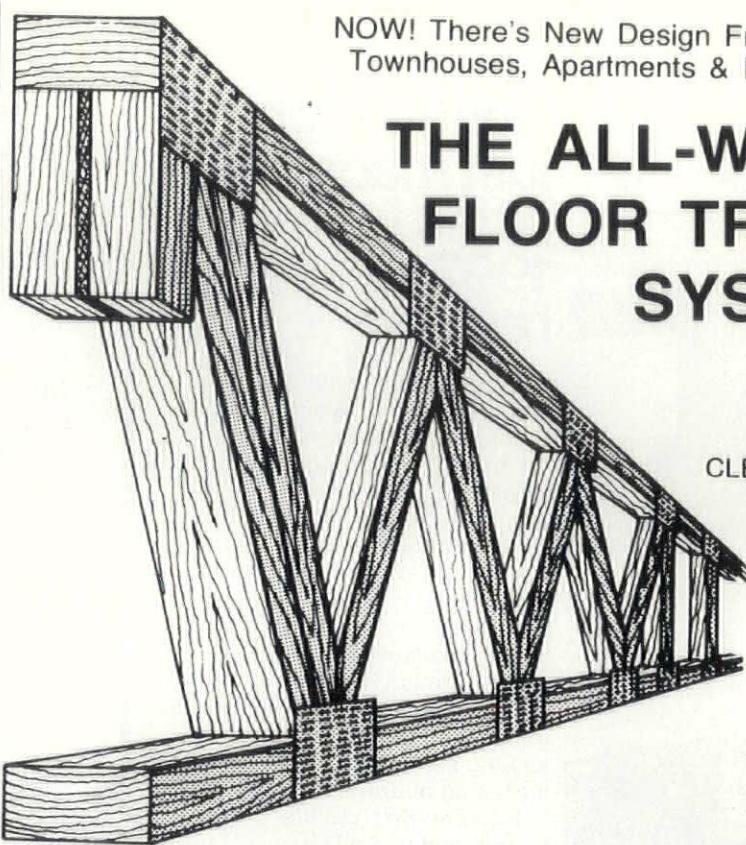


The structure is designed to carry six additional stories

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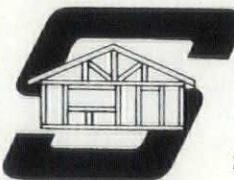
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that Paul Granlund would put the human figure in his, even somewhat oversized . . . It allows you to make the leap from you to the sculpture to the building and that will be also the same case with other things on the plaza — once the trees grow up, etc."

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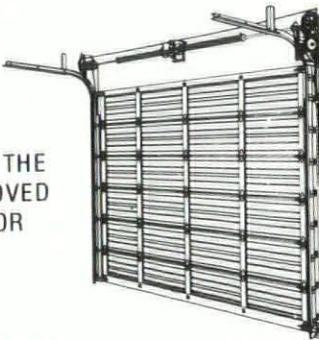
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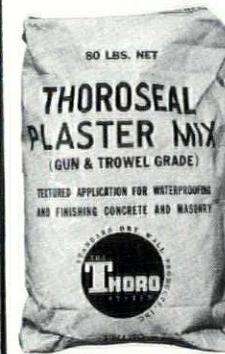
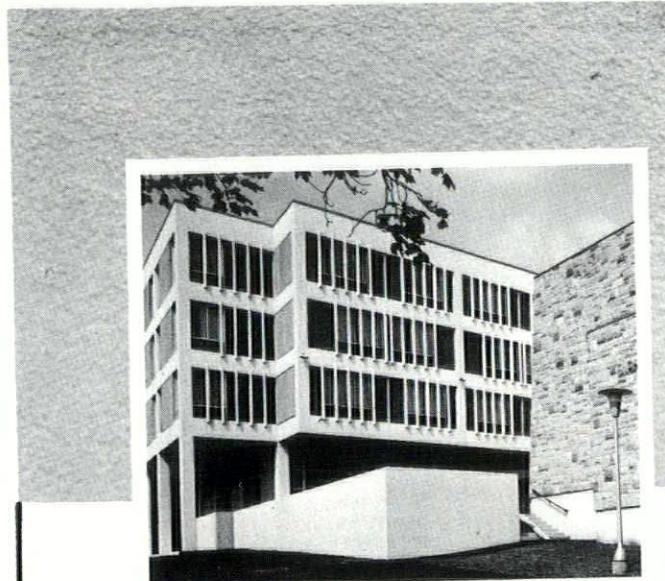


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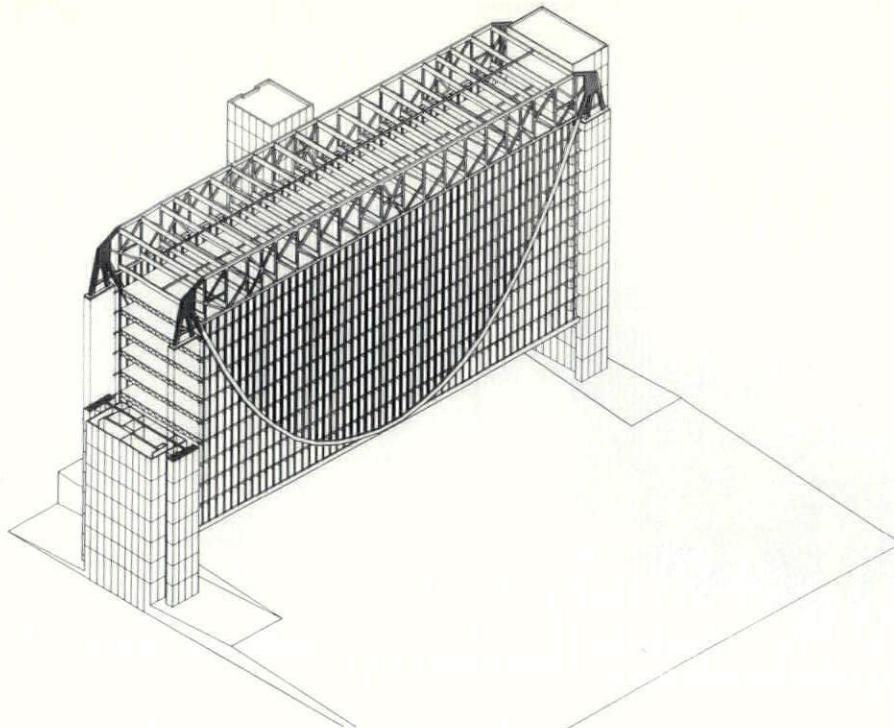
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ter, but it is not a big problem to double the span with the same principle. The longer the span the more economical it would become — as you get away from the more conventional methods of spanning. We went through all of them and this still was the most reasonable and economical way." ■



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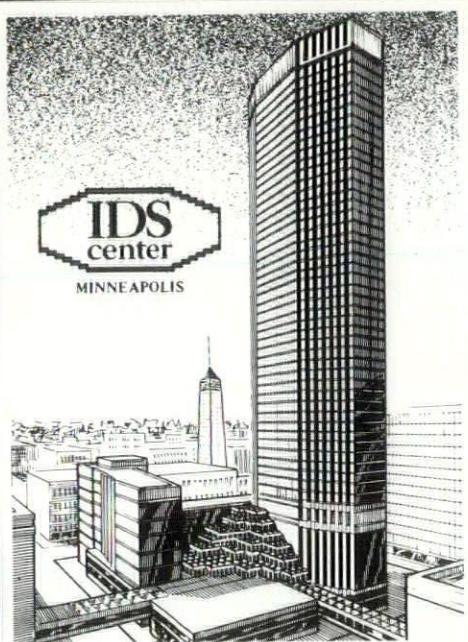
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Reviewed by **John Rauma**

John G. Rauma, FAIA, is a Principal in the firm of Griswold and Rauma, Architects, Inc., of Minneapolis. His firm received two awards at the last Minnesota Society of Architects' Honor Awards Program.

It may pass unnoticed, but the January issue of Progressive Architecture devoted to its annual design Honor Awards Program is simply called the 21st Awards Program. Our broadening framework of concern, occurring in today's ambience of crisis appears to be sounding the death knell of "Design" for design's sake. Over the past few years, PA juries have called increasing attention to content, and causes. This year the jury appears to have been searching for issues and concerns — rightly so.

Although the jury was composed of individuals, well-known, and also lesser known, in the environmental design professions, its composition and larger size (8) suggests that its evaluations and responses were based on broad, and thoughtfully developed criteria. Joseph Esherick and Jaquelin Robertson appear to have made contributions remarkably consistent with their previous work and interests, in the content of continuing shifts in emphasis, in concern for quality of life, the environment, our natural, material, and energy resources, context and progress.

The program itself reflects a shift in emphasis by the addition of an applied research category to supplement the architectural and urban design categories. Two of the jurors were asked to formulate a framework for future submissions in this category, and award selections were generally representative of seven types of research, which, incidentally, are developed from the, now classic, design process (system) framework model for design method.

To give clear expression of the character of this year's record submission of 863 projects, the jury chose to select and present them in groups. Bootmill Cultural Community Center in Lowell, Massachusetts is representative of the "recycle" group. It is delightful and prideful to note that the designers, Michael and Susan Southworth, are graduates of the School of Architecture, University of Minnesota. Their proposal introduces new cultural, housing, and commercial activities in an early 19th

century cotton mill on the Merrimack River.

The group selected as representative of "environmental response" includes a federal building proposed for Saginaw, Michigan which has a roof-top community park and a solar collector, as well as energy, and pollution efficient heating and sanitary systems.

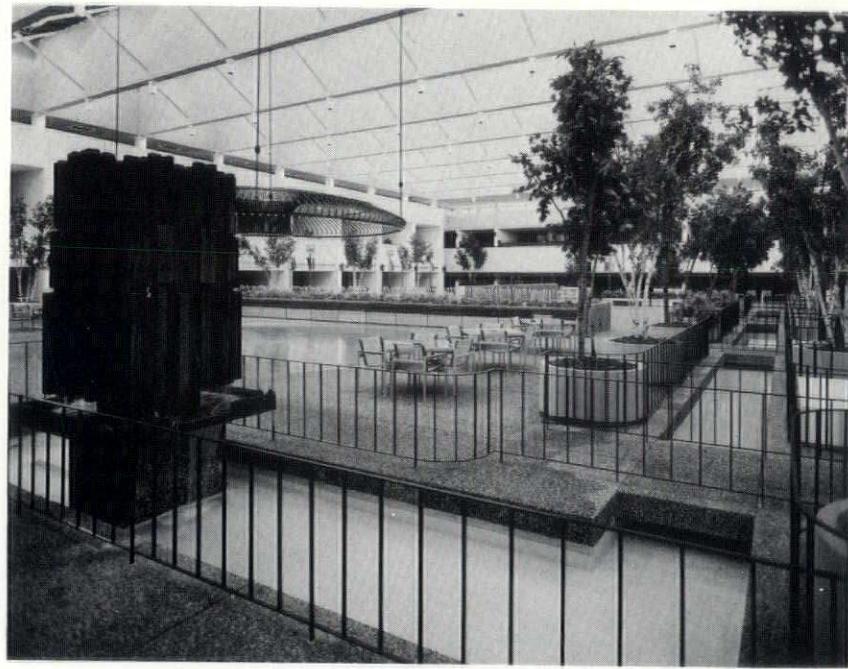
"The machines" are a group of projects selected as representative of the better projects carried out in a "machine idiom" and expressed in an impersonal representational idiom. This group appears to have been given short shrift by the jury, and little space or coverage in publication, giving the impression that this state of the art may be vacuous, superficially and only stylistically responsive to individualized building technology.

"Les Maisons" is a collection of houses representative of about 10% of the 300 housing entries. All in the style of Le Corbusier, as interpreted by Eisenman and others, they are presented with dimetric graphic techniques characteristic of the style. The jury appears to be unimpressed except for an interesting and environmentally responsive townhouse proposal for Philadelphia.

The urban planning and design group was selected from about 100 entries in this category. Selections were made, in part, on the basis of representing new developer client groups which suggested larger impact and potential for realization. Here, an interesting dialogue develops between Scott Brown and Joe Esherick on the issue of the validity or relevance of stick-on decorative or stylistic flourishes in the environmental market place, as related to the project by Bissell-August Associates for Mustang Island. A project by the Urban Design Council, City of New York, is of important interest in that techniques of developing and communicating urban design performance standards for development design are illustrated.

The general submission is criticized by Esherick and Robertson, (pp 53) for lack of clear and precise contextual information and clarity regarding the problems and design issues to be resolved. This concern telegraphs to the reader in the thinness of information for the projects which are illustrated.

If the 1974 P A Awards Issue gives an accurate impression of the state of the art, it is as confused and uncertain as are other facets of life in the United States today, and searching for a responsible and sustaining role in resolving our new and immediate problems.



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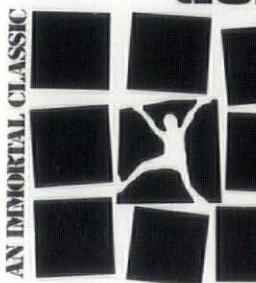
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Book Reviews

New Towns in America: The Design and Development Process. John Wiley & Sons. 165 pp., \$19.95.

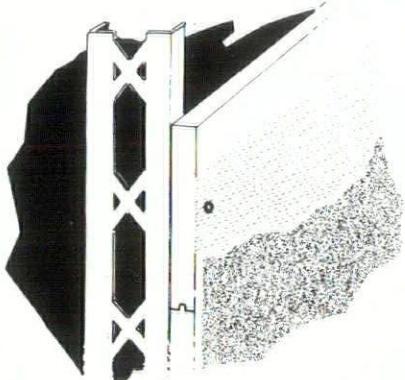
The book draws upon the combined experience of 22 specialists and more than 350 professionals who participated in an AIA-sponsored conference on new communities and re-

flects the conviction of the AIA Urban Planning and Design Committee that the architectural profession needs to be informed about community-scale development.

The text, photos, plans, drawings and diagrams offer an authoritative analysis of where our nation is today in the art of new town development, where it has been in the past and where it may be—and should be—going.

Editor James Bailey takes the reader on a "guided tour" of the new town design and development process, from the comparative land-use plans of 32 historic and current American new towns to the 1972 report of the AIA National Policy Task Force. The book explores virtually every aspect of the process, beginning with an overview of systems design, through a step-by-step description of how its myriad parts are identified, unified and solidified and finally a deeper analysis of the parts—economic, social, physical, and political.

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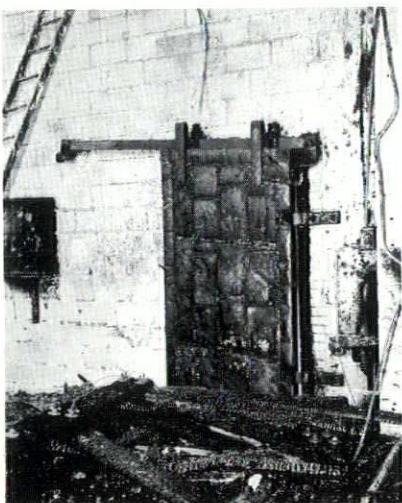
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"Save-The-Cities" Campaign Launched by Area Coalition

A "Save-The-Cities" campaign has been launched by a coalition of organizations in the Metropolitan Area that is trying to get lending institutions to invest more mortgage monies in Minneapolis and St. Paul.

The groups include Organization for a Better St. Paul, Greater Metropolitan Federation, North East Community Organization and Metropolitan Senior Federation. The coalition met for the first time this fall.

The coalition was formed to alter the fact that few mortgages are available in the Metropolitan Area. When they are available, down payments of 30 to 50 percent are required, mortgage preference is given to new and more expensive homes and neighborhoods and mortgage interest rates are increasing.

The group's strategy is to solicit pledges from individuals and organizations that would be willing to transfer their savings deposits to a particular lending institution(s) which would agree to use the new deposit receipts to support more mortgage investments in the central cities.

The strategy has two advantages. First, the pledgees are not required to make any risk investment with their deposit. They merely deposit the money in a bank that agrees to provide the mortgage loans. Their deposits will receive the same return and have the same security as any conventional deposit.

Second, the selected bank will benefit from having a larger cash flow coming to it as a result of the additional accounts it receives through the pledges. From the increased cash flow the bank will then be able to make additional mortgage loans.

The coalition hoped to raise a million dollars worth of pledges by the end of October. As of mid-October, a total of \$197,314 had been pledged by some 80 people or groups. After October the coalition planned to approach institutions for the purpose of soliciting additional pledges.

Persons or groups interested in pledging may contact Organization for a Better St. Paul, 646-8555, Greater Metropolitan Federation, 645-0261, or North East Community Organization, 789-7218.

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To Care & To Plan

"Less is more" - Ludwig Mies van der Rohe, FAIA

The synergism of forces facing the 1974 Minnesota Legislature can — if confronted and shaped with boldness and vision — result in legislative action which will vindicate that famous architectural quote "Less is more".

Our energy, natural and land resources are finite. Even though the crisis has been predicted for some time, it remains acceptable to our morality to gratify our every wish and to demand more leisure, more pleasure, more conveniences and more goods of all kinds. We now must realize that *less consumption, less use of certain materials, less uncontrolled growth, less energy use, less dissipation of our space resources will mean much more for the quality of life of future generations of Minnesotans.*

The 1973 Legislative Session made bold beginnings to help reverse this course in Minnesota with the passage of the Environmental Policy Act, the establishment of the Environmental Quality Council, the passage of the Wild Rivers and Critical Area Acts, the creation of the Commission on Minnesota's Future, the establishment of

the Aesthetic Environment Program, the further strengthening of the Minnesota Housing Agency's ability to serve low and moderate income families and the passage of a series of other vital housing and development district measures.

Other important progressive legislation was passed which all Minnesotans can be proud of. However, in planning for the future, 1974 is clearly the "Less is more" legislative year. The decisions legislators make, the designs they formulate, will long shape the quality of life in Minnesota.

The Minnesota Society of Architects' *To Care and To Plan 1974* is concerned with a series of imperative and intertwined issues to which the legislature is now addressing itself.

In 1974, vision demands: The establishment of a unit of Minnesota government to provide leadership and coordination for the development of an energy policy and adequate energy conservation measures. The Energy Conservation Act of 1974 should also be passed.

Urgent attention to the areas of land

use and growth policy, transportation planning, housing rehabilitation and housing finance for the low and middle income groups as well as open space planning and preservation.

The enhancement and strengthening of our environmental policies which involves the maintenance of a delicate balance of forces to insure vitality of regrowth and new growth.

Assurance of public and individual morality, responsiveness and openness.

It is in this spirit that the Minnesota Society of Architects will present to the Minnesota Legislature *To Care and To Plan 1974*. Although legislators and architects may not, in Toynbee's sense, be able to save our civilization, they certainly must remain its chief guardians.

The Minnesota Society of Architect's detailed legislative program *To Care and To Plan 1974* is available from the Society's offices, Suite 100, Northwestern National Bank Building, Saint Paul 55101, 612-227-0761.

1974 Legislative Program Minnesota Society of Architects



MANUAL OF BUILT-UP ROOF SYSTEMS.

By C. W. Griffin, Jr., PE, for the American Institute of Architects, McGraw-Hill Book Company, New York, 1970. \$14.50.

Reviewed by **James A. Kellett**, AIA, CSI.

The reviewer is an architect and specification consultant and principal of Team 70 Architects, Inc. of Saint Paul.

Admit it or not, the cost crunch on professional services makes it less and less possible for the architect to be the master of every detail and every system in the buildings he designs. The architect who has had the good fortune to

avoid a first roofing failure may well be surprised that the National Bureau of Standards estimates that almost one in six of the built-up roofs installed in the U.S. fail in one to five years. Little wonder then that the AIA moved to sponsor this very thorough treatise on one of architecture's major technical problem areas.

Griffin has assembled a wealth of technical information into a fine reference document, well organized for day-to-day and job-to-job use. Although it could be used as a textbook for a course in roofing systems, the format of the book allows the architect to easily locate and use very specific information on very specific problems.

Early chapters assay the roof as a

system and then explore each major component from structural deck, through the roofing membrane to include flashing and accessories. Later chapters discuss fire resistance and other engineering considerations. A very complete guide specification is included and, while many firms might ignore this guide as a working tool, the marginal notes offered are sufficient to lead the user to a cross referencing with the technical information in the book; thus the user has an excellent cross check to his own roofing specifications.

Taken by itself, any of the chapters on the various components will provide a very thorough-going re-education for even the experienced practitioner. One can foresee the need for specific review in some part of the roof system on almost any project, whether it is vapor control, installation or the avoidance of membrane failures.

Beyond its reference value the book can be preventive medicine in the sense that it fosters the understanding of one of the more complicated technical aspects of building construction.

CONSTRUCTION ESTIMATES FROM TAKE-OFF TO BID, Second Edition

By Norman Forster, McGraw-Hill Book Company, New York, 1972. \$16.50.

This is a textbook for the construction estimator. It also would make a reasonable text for a trade school or junior college course in estimating. Its most apparent value in the architectural or engineering office would be as a self-help reference to the draftsman or technician faced with developing an ability in construction estimating for continuous use.

The detail in the book is excellent. The author has included instructions and advice in minute detail including foremost materials: take-off and pricing units, extensions, allowances for cutting, fitting and waste and the considerations of transportation methods, handling costs, etc.

TSA ■

CREATIVE CONTROL OF BUILDING COSTS

Edited by William Dudley Hunt, Jr., AIA, for American Institute of Architects, McGraw-Hill Book Company, New York, 1967. \$14.50.

This is another of AIA's fine series of practice references. It is not the usual practical estimating guide, nor a textbook for cost estimating. Instead it follows its title and provides an assembly of essays on principles, concepts, techniques and systems for cost control.

The book is heavy reading but probably satisfies a greater need in the profession today than it did at publication. Recommended reading for all architectural managers.

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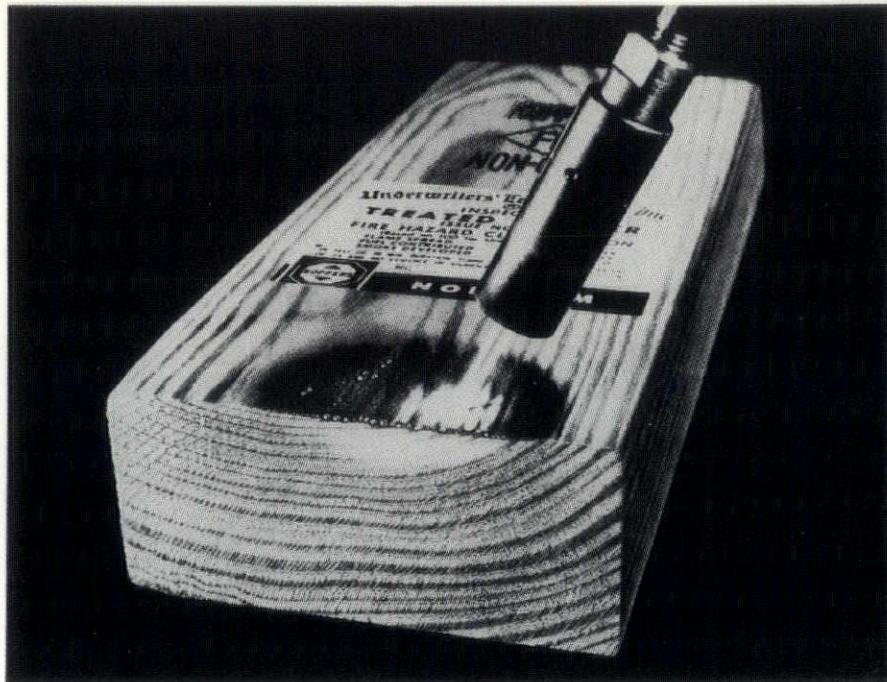
Today, a successful architect must have sufficient knowledge of products available in order to design a specific structure. Larry Klick, vice-president in charge of sales for Snow Larson, Inc., Minneapolis, offers this kind of knowledge to architects.

In working with architects, he provides them with the latest technical information for over 73 different products used everyday in construction. As a technical sales representative, Klick refers to his job as "actively participating with the customer under such product categories as: concrete, masonry, weather protection, and finishes."

Working directly with customers and having strong technical sales background has allowed Klick to join architectural-related organizations. He is currently active in the Construction Specifications Institute as chairman for Division Five and the Education Committee.

Klick believes the job of the supplier has grown quite complex. In order to keep the complexity of supply to a minimum, the Snow Larson Company has recently expanded its facilities. Warehouse space has been added to the office space in order to expedite orders and make products readily available to architects. "For the most part, architects will no longer have to wait for shipments but can pick up merchandise directly from us."

Being active and a participant in sales is carried over by Klick during his off hours. Klick's hobbies include participation as an instructor in both sailing and skiing.



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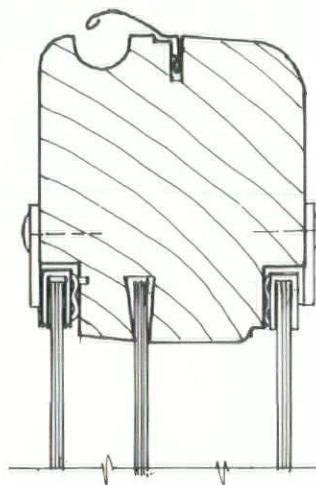
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Capsule Descriptions Featured in Mohawk Presentation

Quick finding of what is desired is made possible for the specifier by the new Mohawk wood doors catalog, which features "capsule" presentations of products, well illustrated in full color. Newer lines are given special treatment in the presentations. All is "concise and to the point." Copies can be had from M. Everly, Mohawk Flush Doors, P.O. Box 3098, South Bend, Ind. 46619.



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Home-owners with casement or awning style windows can conserve fuel. The answer lies in putting three sheets of glass between yourself and the elements. Studies have shown that the saving in BTUs with triple-glazed windows is about 25% more than with double glazing — The result is less heating expense. Information can be obtained from Kindem Millwork Co., 83rd and Grand Ave. S., Minneapolis, Mn. 55420.



LOF Reflective Glass Makes An Old Building Like New

Officials of the Branch Banking & Trust Company of Wilson, N.C. recently opened a banking center. But it is unlike most, because the structure features a chrome-like reflective glass wall that is visually appealing, it increases visibility, and keeps the building cooler. The silvery coated Vari-Tran reflective glass is mfg. by Libby-Owens-Ford Co., 811 Madison Ave., Toledo, Ohio 43695.

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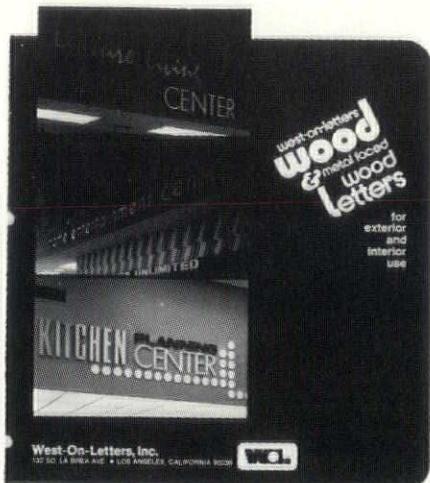
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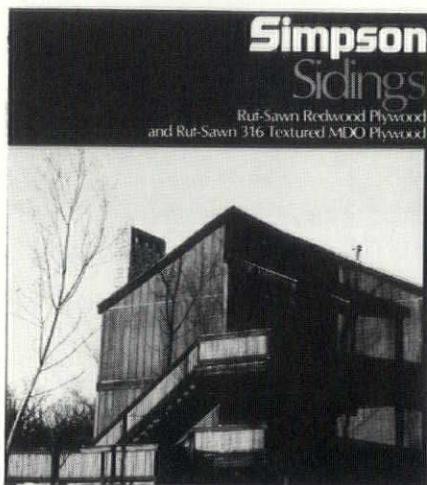
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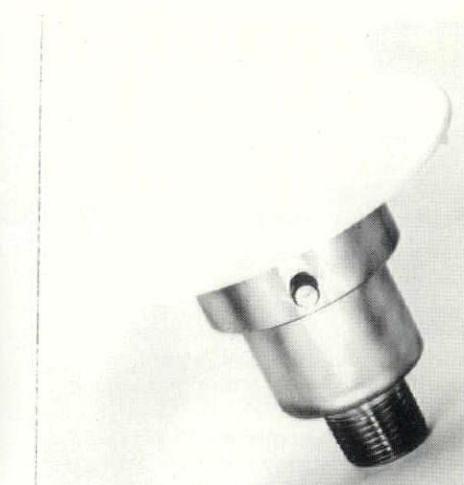
New Wood and Metal-Faced Letters Catalog

A eight-page catalog of wood and metal-faced wood letters is now available. The wood letters are cut from solid seven-core marine plywood and finished for all types of use. The metal faced letters are furnished with aluminum facing and painted edges. Other facings include plexiglas, sand blasted, and antique. For additional information, contact West-On-Letters, Inc., 132 So. La Brea Ave., Los Angeles, Ca. 90036. ■



Ruf-Sawn Sidings Featured In New Simpson Brochure

An eight-page sidings brochure is now available. Emphasis is placed on end use of redwood plywood products. Pages are devoted to architectural details including window-wall treatment, fascia and soffit, and cross-banding. Each product is described with color illustrations. The brochure is available from Simpson Timber Co., 2000 Washington Bldg., Seattle, Wash. 98101. ■



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Sixteen metallic finishes are now available for cover plates of "The Un-spoiler" fire sprinkler, blending them with any interior finish. UL listed and Factory Mutual Approved, the sprinklers have temperature ratings of 117°, 135° and 165°. Details of the four-inch plates are presented in a full color brochure from Star Sprinkler Corp., 4545 Tacony St., Philadelphia, Pa. 19124. ■

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Suppliers' News . . .



(left to right) Bruce Humphrey, Dick Doolittle and "Mac" McNiece.

Adjacent booths of masonry industry exhibitors at the recent Minnesota Society of Architect's Convention resulted in greater attention for each participant.

This was the opinion of Minnesota Masonry Institute Executive Director Tom Richardson, who felt its "Masonry Row" could well become a fixture at future conventions.

Side-by-side display booths in Masonry Row were sponsored by Zenith Products, Charles M. Freidheim Co., Ochs Brick and Tile Company, Anchor Block, Cantex Industries, Minnesota Masonry Institute, Minnesota Concrete and Masonry Contractors Association and Minnesota Brick and Tile.

Minnesota Masonry Institute, the coordinator, staffed a booth in the Row's center which demonstrated step-by-step construction of a composite block and brick wall and arch.

The four sections of the wall featured: single V-score concrete block

and flemish cross band brick with a four-in. block backup; splyt face concrete block and saron running bond brick with a four-in. block backup; bur-nished stack bond concrete block and eight-in. through the wall brick in stack bond; shadow-wall, eight-in. concrete block and soldier course and common bond brick with a four-in. block backup. The arch construction featured a modular brick with rowlock course. In addition, MMI sponsored a free caricature service by a local artist.

Another crowd attractor of Masonry Row was Ochs Brick and Tile Company's Polaroid photographs which, thanks to mirrors, pictured an individual from five different angles thus making him a one man "Board of Directors."

The Zenith Products' patio display won the Blue Ribbon Award for excellence in booth design.



(left to right) Ed Lundgren, Peter Pflaum and Tom Richardson

Presentation of the Minnesota Masonry Institute's first annual award for outstanding use of masonry was made by MMI executive director Tom Richardson to Lundgren Bros. president Ed Lundgren and vice-president Peter Pflaum.

The award was won for the Wayzata company's creatively-functional use of masonry on exterior-interior walls and fireplaces.

The winning home is the Lundgren Bros. Bent Rambler located in the Weber Hills development, Lake Minnetonka. It contains 1,800 sq. ft. of finished living space plus an extremely large walk-out lower level. The floor

plan provides a full range of surprises emphasizing indoor-outdoor relationships, with a patio deck and a decorative stone used on the exterior-interior wall surfaces. Paneled family room features a massive brick fireplace, bay window and cedar beam ceiling.

Lundgren Brothers, Wayzata, was started in the spring of 1969 by Ed and Jerry Lundgren. The company started slowly building only four homes their first year in business. In 1970 the company built seven homes. In 1971 the company volume expanded to over \$400,000 in sales. In 1972 sales exceeded \$1 million. A goal of \$2 million in sales is projected for 1974.

According to Peter Pflaum, "one of our requirements to succeed as a viable company is to differentiate our houses from our competitors. This is particularly true for us as we specialize in expensive custom homes selling for \$40,000 to \$100,000. Over the years one of the ways we have accomplished this task is by our innovative use of brick and stone. For the future, we intend to continue to improve our use of masonry, particularly in the interiors of

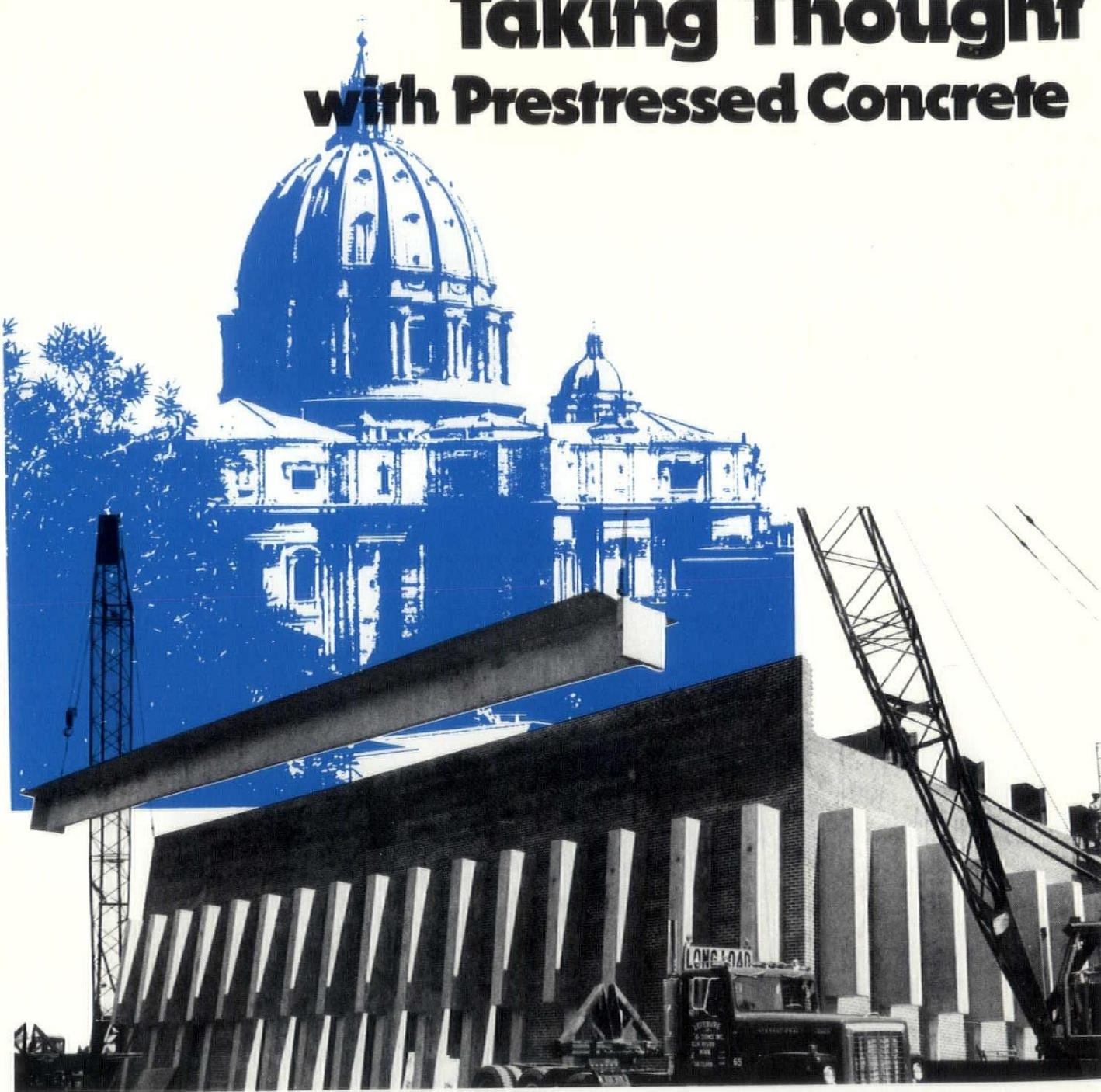
our houses."

The company is optimistic about the growth of the housing industry in the next decade. "The demographics of new family formation are very favorable up to the 1980's. We also feel that the Twin Cities' area, due to its excellent quality of life, will grow faster than the national average over the next decade."

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Taking Thought with Prestressed Concrete



The Vatican stands as a monument to man's creative thinking. The type of thinking which brought mortar and stone together into one of the great religious edifices of all time.

Today's Prestressed Concrete structures capture man's religious thought in a modern, space age society. The Abiding Savior Lutheran Church, shown being completed with Prestressed Concrete giant roof beams, is a monument of beauty and function.

Here is a 750-seat sanctuary and educational complex that is not only a sanctimonious place to worship but a pleasant atmosphere for religious learning. Prestressed Concrete made it possible. Pictured being hoisted into place is a giant single "T" roof beam. The component is 93 feet 6 inches long, 8 feet wide with a special end diaphragm. It provided many construction advantages: fabricated off the job site and independent of high-priced on-site construction cost factors; pieces shipped as needed to the job-site; erection was fast and trouble free. The completed church is both functional and pleasant — truly a source of pride to the congregation.

PROJECT: Abiding Savior Lutheran Church
Spring Lake Park, Minnesota

ARCHITECT AND
PROJECT MANAGER: Ekberg-Petri, Inc.,
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ENGINEER: Frank Horner Co.,
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PHOTOGRAPHY: Courtesy of the Sun Newspapers

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With Energy Conservation a major concern of every American, the recycling of heat energy in our commercial and industrial buildings takes on greater importance today than at any time in history. Energy Conservation through heat recovery makes good sense.

Saves energy—recovers heat waste for other uses.

Cuts costs—improves the environment, saves money.

If you are exhausting heat energy from your building, don't let it

go to waste. Recycle it through a heat recovery system that will fit your needs.

For more information, contact your consulting engineer or your gas company energy expert. And send for our free booklet:

Energy Conservation Through Heat Recovery

Write to: R. J. McChane, Northern Natural Gas Company, 2223 Dodge Street, Omaha, Nebraska 68102

Energy Conservation concerns us all.



Northern
Natural Gas
Company